University of Alberta

CHARACTERISTICS, KNOWLEDGE, AND PERCEPTIONS OF WOMEN WHO RECEIVE EPISIOTOMY

by

LORNA BREITKREUZ

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of MASTER OF NURSING

FACULTY OF NURSING

Edmonton, Alberta

Spring 1998

National Library of Canada
Acquisitions and Bibliographic Services
395 Wellington Street
Ottawa ON K1A 0N4
Canada

Bibliothèque nationale du Canada
Acquisitions et services bibliographiques
395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence

Our file Notre référence

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-29011-5

Canada

University of Alberta

Faculty of Graduate Studies and Research

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled **CHARACTERISTICS, KNOWLEDGE AND PERCEPTIONS OF WOMEN WHO RECEIVE EPISIOTOMY** submitted by **LORNA BREITKREUZ** in partial fulfillment of the requirements for the degree of **MASTER OF NURSING**.

Dr. Beverley O'Brien

Dr. Louise Jensen

Dr. Nestor Demianczuk

14 April 98

Date

Abstract

The purpose of this study was to describe women's knowledge and perceptions about episiotomy in the first three to four postpartum days. A telephone survey was conducted with 185 women who had received an episiotomy. The data were analysed using simple descriptive statistics and correlations where appropriate. The majority of women had not discussed episiotomy with their doctor. Almost half of the women found the information received about episiotomy to be inadequate. The post episiotomy pain reported by some women was severe enough to adversely affect postpartum functioning, and interfere with breastfeeding and baby care. Little evidence was found to support the nursing practices and information given to mothers relating to perineal care in the postpartum period.

Acknowledgements

I would like to thank Dr. Beverley O'Brien for her support and guidance through the thesis process. Her continued expertise, enthusiasm and unending patience was appreciated from start to finish. To my committee members, Dr. Louise Jensen for her experience and advice, and Dr. Nestor Demianzcuk for his clinical expertise and suggestions.

I would like to thank Susan Beischel for her assistance in recruitment and data collection. Her expert help was greatly appreciated. I would also like to thank the Perinatal Research Center for providing funding for the study.

To my husband Herb, I thank you for always being there with your support, encouragement and love. And to my children, Brett, Clarke and Katelyn for your love.

Table of Contents

CHAPTER ONE

Introduction 1

Purpose of the Study 3

Significance of the Study 4

CHAPTER TWO

Review of the Literature 6

Introduction 6

Postulated Benefits of Episiotomy 7

Prevention of Severe Perineal Lacerations 7

Prevention of Pelvic Floor Relaxation 10

Prevention of Damage to the Fetal Head 11

Adverse Effects of Episiotomy 12

Extension of Episiotomy 12

Post Episiotomy Pain 13

Dyspareunia 14

Infection 15

Bleeding 15

Factors Influencing the Use of Episiotomy 16

Clinical Factors 16

Non Clinical Factors 18

Psychosocial Implications 19

Summary 21

CHAPTER THREE

Method 22

Design 22

Sample 22

Procedure 23

Instrument 25

Validity and Reliability 26

Data Analysis 27

Ethical Considerations 27

CHAPTER FOUR

Results 29

Sample 29

Demographic Characteristics 29

Labor and Birth Characteristics 30

Findings Relating to the Research Questions 32

Information and Consent around Episiotomy 32

Women's Knowledge about Episiotomy 32

Women's Perceptions of Events Preceding Episiotomy 33

Physical Effects of Episiotomy on Women 35

Effects of Episiotomy on Baby care 36

Effects of Episiotomy on Breastfeeding 37

Postpartum Support for Women Receiving Episiotomy 38

Women's Feelings about Episiotomy 39

Adequacy of Information and Satisfaction with Decisions around Episiotomy 41

Demographic Variables Related to Women's Knowledge and Perceptions about Episiotomy 42

CHAPTER FIVE

Discussion of Results 45

Labor and Birth Characteristics 45

Information and Consent around episiotomy 48

Women's Knowledge about Episiotomy 48

Consequences of Episiotomy for Women 49

Post episiotomy pain 49

Episiotomy effects on breastfeeding and baby care 50

Postpartum Support for Women Receiving Episiotomy 51

Perceptions and Feelings about Episiotomy 53

Implications for Nursing/Midwifery Practice 56

Implications for Nursing/Midwifery Research 58

Limitations of Study 59

REFERENCES 76

APPENDICES

A: Letter to Physicians 85

B: Indication for Episiotomy Form 86

C: Information and Consent Form 87

D: Interview Schedule 89

List of Tables

Table 1: Reasons for Exclusion, Refusal to Participate, and Loss to Followup of Potential Subjects 60

Table 2: Results of Interrater Reliability Testing 61

Table 3: Combined Income Level for Past Year 62

Table 4: Ranking of Occupations for Women and their Partners 63

Table 5: Medical Indications for Episiotomy 64

Table 6: Womens Perception of Physician Response to her Verbalization of Pain During Suturing 65

Table 7: Womens Perception of Reason for Episiotomy 66

Table 8: Descriptions of How the Episiotomy Felt 67

Table 9: Activities Which Made the Episiotomy Feel Worse 68

Table 10: Frequency of Use of Treatments for Episiotomy 69

Table 11: Effectiveness of Treatments for Episiotomy 70

Table 12: Womens Perception of Information Received on How to Care for Episiotomy 71

Table 13: Other Experiences and Feelings of Women Related to Episiotomy 72

Table 14: Incidence of Observed and Expected Type of Delivery in Relation to Parity 73

Table 15: Incidence of Observed and Expected Third/Fourth Degree Extensions in Relation to Type of Episiotomy 74

List of Figures

Figure 1: Reported Levels of Post episiotomy Pain 75

CHAPTER 1

Introduction

Episiotomy remains the most common obstetric procedure, with rates of 54 percent reported in a Canadian study (Klein et al., 1993). Many authors agree that it is an accepted part of obstetric practice (Reynolds & Yukdin, 1987; Thacker & Banta, 1983; Thorp & Bowes, 1989). While episiotomy may be justified for specific maternal/neonatal indications, the liberal use of episiotomy is questioned (Klein et al., 1993; Sleep, Grant, Garcia, Elbourne, Spencer, & Chalmers, 1984; Thacker & Banta, 1983).

Postulated benefits for the use of episiotomy include prevention of third degree lacerations, damage to the pelvic wall, and trauma to the fetal head (Thacker & Banta, 1983). These postulated benefits have not been supported in four randomized controlled clinical trials (Argentine Episiotomy Trial Collaborative Group, 1993; Harrison, Brennen, North, Reed, & Wickham, 1984; Klein et al., 1993; Sleep et al., 1984).

Significant morbidity has been associated with episiotomy. Third/fourth degree extensions (Klein et al. 1994; Labrecque et al., 1997), pain and dyspareunia (Klein et al. 1993; Sleep & Grant, 1987), bleeding (House, 1980), and infection (McGuinness, Norr, & Nacion, 1991) have all been found to be increased with an episiotomy.

Both clinical and non clinical factors are associated with the incidence of episiotomy. Forceps delivery, nulliparity, and increased birth weight have been associated with its increased use (Labrecque et al., 1997; Hueston, 1996). Attitudes, beliefs and skill levels of care providers have also been found to influence episiotomy

use. Those practitioners who view episiotomy favourably have higher rates of episiotomies and other obstetric interventions (Klein et al. 1995).

Studies relating to women's satisfaction with childbirth have provided some insight into how obstetric interventions, such as episiotomy are perceived by women. For many women, lack of information regarding obstetric procedures (McIntosh, 1989), and the amount and type of procedures they were exposed to, led to dissatisfaction with their birth experience (Green, Coupland, & Kitzinger, 1990). However, the results of these studies have been inconclusive in determining the psychosocial effects of episiotomy on women. One study focused on women's experiences of episiotomy (Kitzinger & Walters, 1981). The results of this study showed that episiotomy was not discussed with the majority of women in the prenatal period, and many were told after the procedure that the episiotomy had been done. Many had little knowledge of the indication for the procedure.

Episiotomy has been demonstrated to carry significant risks. The morbidity associated with the procedure suggests that it should be used judiciously. Women must be fully informed as to the risks and benefits of the procedure and have the opportunity to make an informed choice about whether to receive an episiotomy.

Health reform has focused on increased consumer participation and responsibility in the provision of health care (Alberta Health, 1993; Epp, 1986). Nurses and women are equal partners in health, and as such, investigation and learning gains are shared through a process of active internal discovery (Hughes, 1997). A basic tenent in the midwifery model of care is informed choice. The goal of informed choice ensures that birthing

women are provided with comprehensive information about their care, so that they may be the prime decision makers during the course of their care (Shroff, 1997). As women become more involved in decisions around their care, nurses and more recently, midwives, are in a position to provide appropriate and accurate information so informed choices can be made. By entering into an equal partnership with women, nurses and midwives have the opportunity to provide accurate, research based information, about the risks and benefits of episiotomy in the prenatal period. Nurses and midwives who provide support to women in labor, can act in an advocacy role, assisting women to make informed decisions, and advocating for them. Finally, nurses and midwives must be knowledgable about the impact of obstetric interventions, such as episiotomy, on women in the postpartum period, in order to provide sensitive, individualized care.

Purpose of the Study

The purpose of this study was to describe women's knowledge and their perceptions about episiotomy in the first three to four postpartum days. The research questions which were examined included the following:

1. Are women informed that they might have an episiotomy?
2. Do women agree to the possibility of an episiotomy?
3. What do women know about their episiotomy?
4. How does episiotomy affect postpartum functioning?
5. How does having an episiotomy affect breastfeeding?
6. What support is given to women in the postpartum period in relation to their episiotomy?

7. How do women feel about their episiotomy?

8. How do the demographic variables of age, parity, education and socioeconomic status affect what women know and their perceptions about episiotomy?

Significance of the Study

An obstetric intervention from the perspective of women was described. It is important in gaining an understanding of women's knowledge and perceptions about episiotomy.

A greater understanding of women's knowledge in this area is invaluable in providing direction for prenatal education and the provision of appropriate care in the postpartum period. Practice issues such as minimizing perineal trauma can be better addressed when care providers are aware of the physical and psychological concern that women have about episiotomy.

Health care reform has provided greater autonomy for nurses and midwives to promote women centred care and to advocate for women so that they can take control of their health. As nurses and midwives adopt health promotion activities such as cooperation and collaboration (Epp, 1986), women will become active participants in decisions related to their health.

Nurses, and midwives in particular, can benefit from an understanding of women's knowledge and perceptions about episiotomy and other obstetric interventions. Nurses and midwives establish relationships with women very early on in pregnancy, many times preconceptually, and provide pregnant women with comprehensive

information about their care. As well, they play an advocacy role through the labour period, and provide support for women in the postpartum period.

This study provides important information about episiotomy, and what women know and perceive about this obstetric intervention. Prenatal education provided by nurses and midwives must be addressed from a research based and provocative approach, in order to assist women in understanding the risks and benefits of the procedure. As well, the information gained from this study can provide direction for intrapartum nurses and midwives to provide appropriate support for women in labour, assisting them to minimize perineal trauma. A greater understanding of episiotomy from the perspective of women can assist in improving the quality of care in the postpartum period for those women who undergo the procedure. Thus, health care providers, and the women that they serve, may benefit from this research.

CHAPTER 2

Review of the Literature

Introduction

Episiotomy is the most common of all obstetric procedures performed on women, with rates of 54 percent reported in a Canadian study (Klein et al., 1993). Defined as the surgical enlargement of the vaginal orifice during labour and delivery (Thacker & Banta, 1983), episiotomy has been an accepted part of obstetric practice (Reynolds & Yukdin, 1987; Thacker & Banta, 1983; Thorpe & Bowes, 1989).

While the performance of episiotomy may be justified for specific maternal and fetal indications (Klein et al., 1993; Sleep, Roberts, & Chalmers, 1989; Thacker & Banta, 1983), the basis for the liberal use of episiotomy in obstetric practice is being questioned. As with any surgical procedure, episiotomy carries a number of risks (Sleep, Roberts, & Chalmers, 1989; Woolley, 1995a), and there is increasing evidence that considerable morbidity is associated with the procedure (Kitzinger & Walters, 1981; Klein et al., 1994; Larsson, Christensen, Bergman, & Wallstersson, 1991; Reading, Sledmere, Cox, & Campbell, 1982; Reynolds, 1994).

Until recently, recommendations that episiotomy be used routinely in vaginal deliveries were found in obstetrical textbooks (Zlatnik, 1994). However, no clearly defined evidence for routine use of episiotomy was found in a 120 year (1860 - 1980) review of the English language literature (Thacker & Banta, 1983). From this literature review, the postulated benefits included prevention of third degree lacerations, serious damage to the pelvic wall, and trauma to the fetal head. Thacker and Banta (1983)

reported that studies lacked sound methods, were inconclusive, or the sample size was insufficient to determine whether hypothesized benefits did occur. Risks that were considered to be associated with episiotomy included extension of episiotomy, bleeding, infection, dyspareunia, and severe pain. (Thacker & Banta, 1983).

In this literature review the postulated benefits and associated risks of episiotomy will be presented. Factors reported to influence the use of episiotomy, and psychosocial implications of episiotomy will also be discussed in light of current research.

Postulated Benefits of Episiotomy

Prevention of Severe Perineal Lacerations

The major justification for the use of episiotomy is the prevention of severe perineal lacerations. It is generally accepted that rupture of the anal sphincter (third degree tear), and possible extension to the rectal mucosa (fourth degree tear), constitutes the highest morbidity from either spontaneous laceration or extension of episiotomy (Woolley, 1995a).

Randomized control trials (RCT) have been conducted to investigate the policy of routine episiotomy or restricting episiotomy to specific fetal or maternal indications in relation to perineal trauma. Harrison and colleagues (1984) randomized 181 women to either a 'routine episiotomy' or 'no episiotomy' group. Mediolateral episiotomy rates were eight percent in the 'no episiotomy' group compared to a pretrial rate of 89 percent. No third or fourth degree lacerations occurred in women without episiotomy, while six percent had extensions in the women with episiotomy group. It must be noted that the study's primary focus was on postpartum symptoms, and not the occurrence of

lacerations (Woolley, 1995a). Sleep and associates (1984) randomized 1000 women to examine a liberal versus restricted policy of mediolateral episiotomy. The resulting episiotomy rates were 51 percent and 10 percent, respectively. No group differences were found in sutured perineal trauma and episiotomy extensions.

In the largest RCT involving the use of mediolateral episiotomy, both nulliparous and primiparous women giving birth in eight Argentinean hospitals (n=2,606) were randomized to two groups. One group received an episiotomy and the other only did if warranted by the status of the fetus (Argentine Episiotomy Trial Collaborative Group, 1993). Episiotomy rates were 83 percent and 39 percent, respectively. There was no significant difference in third degree lacerations between the trial arms, for either nulliparous or primiparous women. Similar results were obtained in the only North American RCT involving midline episiotomy (Klein et al., 1993). Women were randomized to either a liberal or restrictive policy of episiotomy (n=703). The presence of third/fourth degree tears were associated with extensions of the episiotomy in both groups. Perineal trauma requiring sutures was similar for primiparas in both groups. Multiparous women in the restricted episiotomy group gave birth more often with intact perineums, resulting in a higher probability of this group having intact perineums than women in the liberal group ([OR]1.85, 95 percent [CI]1.90 to 3.16). While episiotomy rates differed significantly between groups in each of these studies, they did not differ with respect to the incidence of third degree lacerations (Helewa, 1997).

No change in the rates of severe perineal trauma have been noted in longitudinal studies despite decreasing episiotomy rates. Reynolds and Yukdin (1987) examined the

variables of perineal outcome and postpartum complications in a retrospective study of 24, 439 births over a four year period. While there was a large decline in the number of episiotomies from 72.6 to 44.9 percent among nulliparous women and from 36.8 to 15.4 percent among pareus women, no changes occurred in the rate of third degree tears. Use of episiotomy was associated with a four fold increase in third and fourth degree lacerations in a study comparing episiotomy practices in a primary and tertiary care hospital (Wilcox, Strobino, Baruffi, & Woodrow, 1988).

Perineal trauma resulting from episiotomy appears to vary with the type of episiotomy performed. There is some evidence suggesting that routine mediolateral episiotomy has a protective effect on the perineum. A retrospective case-control study of 702 women was carried out to determine the role of mediolateral episiotomy in third degree tears. Using separate univariate analysis on nulliparous and on multiparous women, the results showed that mediolateral episiotomy was associated with fewer sphincter injuries in nulliparous women (Poen, Felt-Bersma, Dekker, Deville, Cuesta & Meuwissen, 1997). Helwig and associates (1993) report that mediolateral episiotomy was associated with a 2.5-fold reduction in the risk of severe lacerations among primiparous women, compared with no episiotomy. Midline episiotomy, however, increased the risk of severe perineal trauma four fold (Helwig, Thorp, & Watson, 1993). Other studies have also demonstrated that midline episiotomy is strongly associated with third and fourth degree lacerations (Labrecque et al. 1997). Klein and associates (1994) reported a causal relationship between midline episiotomy and severe perineal trauma in a cohort analysis (n=697 women).

A reduction in anterior perineal trauma has been associated with the routine use of episiotomy. The results of a retrospective study of 807 primiparous women showed that the non-episiotomy group experienced more clitoris/labial tears than the episiotomy group ($p<0.01$) (Rockner, Wahlberg, & Olund, 1989). In two RCTs, a decrease in the number of anterior lacerations were found in the routine episiotomy group (Argentine Episiotomy Trial Collaborative Group, 1993; Sleep et al., 1984). Mediolateral episiotomy was undertaken in each of these studies. However, Klein and colleagues (1993) found no significant group differences with respect to anterior vaginal trauma when midlife episiotomy was used. It has been noted, that in the practice setting, such injury carries a very low incidence of pain (Woolley, 1995a) or other morbidity (Argentine Episiotomy Trial Collaborative Group, 1993; Woolley, 1995a).

Prevention of Pelvic Floor Relaxation

A frequent claim in support of routine use of episiotomy is that it prevents pelvic floor relaxation during delivery by shortening the second stage of labour and thereby preventing long term damage that leads to urinary incontinence and genital prolapse (Woolley, 1995a). Two RCTs were conducted to investigate pelvic floor outcomes, specifically urinary incontinence and postpartum pelvic floor strength as outcome variables, in liberal and restricted episiotomy groups (Klein et al., 1994; Sleep et al., 1984). Klein and associates (1994) found that among 697 low risk women, those who delivered over an intact perineum had the strongest pelvic floor musculature (measured by electromyography) at three months postpartum, while those with an episiotomy had the weakest. However, in 1000 women randomized to liberal versus restricted episiotomy

groups, Sleep and associates (1984) reported no differences between groups in the incidence of urinary incontinence at 10 days postpartum and three months postpartum. In a three year followup of these same women, Sleep and Grant (1987) reported the incidence of urinary incontinence to be the same in both groups.

Results from both these studies support similar findings in which vaginal delivery itself as well as parity were found to be associated with pelvic floor relaxation (Sultan et al., 1993). There is evidence that damage to the pelvic floor is common in uncomplicated labour and delivery (Snooks, Setchell, Swash, & Henry, 1984), with the most damage occurring during the first vaginal delivery (Allen, Hosker, Smith, & Warrell, 1990; Sultan, Kamm & Hudson, 1994). This damage is reversible in up to 80 percent of women who were studied (Allen et al., 1990). The amount of damage to pelvic floor innervation is not proven to be affected by the use of episiotomy or the presence of spontaneous perineal tears (Woolley, 1995a), but rather has been found to be associated with a large baby and prolonged and active second stage (Allen et al., 1990; Sultan et al., 1994).

Prevention of Damage to the Fetal Head

The last cited benefit for use of routine episiotomy is prevention of fetal injury, specifically damage to the fetal head and intrapartum asphyxia, by shortening the second stage of labor. Thacker and Banta (1983) reviewed studies analysing the effect of prolonged second stage of labour on neonatal outcomes. They concluded that "these limited studies suggest no clear detriment of prolonged second stage of labor on the outcome of the neonate (pg.330)."

Subsequent to this review, the author of one study has examined the practice of

routine episiotomy in low birth weight delivery (The, 1990). No difference was found in Apgar scores or neonatal mortality rates for low-birth-weight neonates who were delivered through episiotomy versus those who were not. In a review of the literature regarding low birth weight and route of delivery, Ahn and associates (1992) concluded that there is insufficient data to support the belief that routine use of episiotomy protects the fetus from injury (Ahn, Cha, & Phelan, 1992).

Others measured neonatal outcome in liberal versus restricted use of episiotomy in vaginal term deliveries. In three RCTs, no differences were found in apgar scores (Argentine Episiotomy Trial Collaborative Group, 1993; Klein et al., 1993; Sleep et al., 1984), or admissions to intensive care nurseries (Sleep et al., 1984) in either the restricted or liberal episiotomy groups. Other longitudinal studies showed that the use of episiotomy or degree of perineal laceration had no effect on the rates of infant resuscitation (Reynolds & Yukdin, 1987) or the incidence of birth injuries (Wilcox et al., 1989).

Adverse Effects of Episiotomy

Extension of Episiotomy

Third and fourth degree lacerations as a result of extension of an episiotomy may occur either by cutting into the anal sphincter and/or rectum, or by allowing the episiotomy to extend into the sphincter or rectum (Thacker & Banta, 1984). These injuries may have short and long term morbidity including perineal pain, dyspareunia (Klein et al., 1994), incontinence of gas or feces, and rectovaginal fistula (Sultan et al., 1993). In one study, 47 percent of women (n=34) with third-degree tears had symptoms

of anal incontinence at six to 21 months after delivery, compared to 13 percent (n=88) of the control women. The authors concluded that the obstetrical factors most often associated with sphincter disruption were the use of episiotomy and forceps (Sultan et al., 1994).

Midline episiotomy is associated with increased rates of third and fourth degree lacerations (Klein et al., 1994). In a retrospective cohort study involving 6,522 primiparous women, the frequency of severe perineal lacerations, after adjusting for several confounding variables, was 20.6 percent with midline episiotomy and 4.5 percent without episiotomy (Labrecque et al., 1997). Shiono and colleagues (1990) found that women having midline and mediolateral episiotomies were 50 and 8 times more likely, respectively, to experience a third or fourth degree laceration as women without an episiotomy.

Post Episiotomy Pain

Pain from the episiotomy incision has been cited as one of the most bothersome adverse effects of episiotomy (Hordnes & Bergsjo, 1993). A high frequency of post episiotomy discomfort and pain has been reported (House, 1981; Kitzinger & Walters, 1981; Reading et al., 1982). Reading and associates (1982) interviewed 101 primigravid women following mediolateral episiotomy, and reported that all women experienced some degree of discomfort after the episiotomy, with many declaring the pain to be severe. Three months later 14 percent of the women surveyed were still experiencing episiotomy related pain.

Evidence also exists that perineal pain associated with episiotomy may be more

severe than pain associated with either spontaneous perineal tears or intact perineums (Argentine Collaborative Group, 1993; Kitzinger & Walters, 1981; Klein et al., 1994). In an exploratory study, Kitzinger and Walters (1981) surveyed 1,795 women who had attended prenatal classes, to learn about their experiences of episiotomy. While the results are limited by the non-representative sample and the lack of homogeniety amongst groups, women with mediolateral episiotomy were more likely to experience perineal pain a week after delivery than women with lacerations (37 versus 15 percent). Subsequently, it was found not only that perineal pain was less for women who gave birth over an intact perineum, but also that the pain resulting from spontaneous lacerations was less than that from a midline episiotomy (Klein et al., 1994). Twenty to 22 percent of women in the episiotomy group with or without third/fourth degree extensions described their pain as distressing, horrible, or excrutiating, compared to no women with intact perineums (Klein et al., 1994).

Dyspareunia

Women who have episiotomy also report a higher incidence of prolonged dyspareunia than women who do not have an episiotomy (Kitzinger & Walters, 1981; Sleep & Grant, 1987). Women not receiving an episiotomy had the least pain on first postpartum intercourse, as did those experiencing spontaneous perineal tears (Klein et al., 1994). In a sample of 498, women who were in the restricted episiotomy group were more likely to resume sexual intercourse within one month after delivery than those in the liberal episiotomy group (Sleep et al., 1984).

Infection

Perineal healing may be significantly delayed in women with episiotomy due to wound separation or infection (Argentine Episiotomy Trial Collaborative Group, 1993; Larsson et al., 1991; McGuinness et al., 1991). McGuinness and colleagues (1991) reported a 4.9 percent infection rate among women with an episiotomy. Larsson and colleagues (1991) conducted a prospective study of 2,144 women and reported a significantly higher infection rate in women undergoing episiotomy compared to spontaneous laceration. Healing problems such as scarring, asymmetry, and perineal pain with palpation were found to be significantly increased in women having episiotomies compared with women having spontaneous lacerations ($p<0.001$) (Larsson et al., 1991). Similar results were obtained in the Argentine RCT of 2,606 women randomized to routine versus selective use of mediolateral episiotomy. Healing complications, dehiscence and posterior perineal surgical repair occurred more frequently in the routine episiotomy group (Argentine Episiotomy Trial Collaborative Group, 1993).

Bleeding

Increased maternal blood loss is another adverse effect of episiotomy. Thacker and Banta (1983) reported an increase of blood loss of approximiately 300 ml for ten percent of women undergoing an episiotomy. Rockner and colleagues (1991) found that postpartum hemorrhage, defined as blood loss > 600 ml, was more frequent in the episiotomy group than in the non episiotomy group ($p>0.001$). However, no attempt was made to adjust for confounding variables (Woolley , 1995b). House (1980) found that women with episiotomies lost 115 ml more blood than women with spontaneous tears.

Following a thorough review of the literature, Woolley (1995b) reported that both mediolateral and midline episiotomy substantially increase the amount of blood loss at delivery (Woolley, 1995b).

Factors Influencing the Use of Episiotomy

Based on results of studies suggesting that there is little or no benefit to episiotomy, efforts have been made to better understand factors that potentially influence the use of episiotomy (Hueston, 1996). Clinical factors relating to the birth such as forceps delivery, nulliparity, and large birth weight; and non-clinical factors such as skill levels, attitudes and beliefs of care providers have been identified as associated with the practice of episiotomy. These factors will be discussed within the context of current research.

Clinical Factors

Forceps delivery, nulliparity, and large birth weight have been associated with increased use of episiotomy or incidence of perineal laceration. However, all of these factors appear to be based on the likelihood of a laceration (Hordnes & Bergsjo, 1993; Shiono et al., 1990). A problem facing researchers in assessing the relationship between episiotomy and perineal laceration, is the confounding effect of this indication (Hordnes & Bergsjo, 1993). The same factors that caused a woman to have an increased risk of laceration also made performance of an episiotomy more likely (Shiono et al., 1990).

Rates of forceps use in groups of women undergoing episiotomy are greater than those without episiotomy. In a retrospective study of 6,522 primiparous women, the rate of forceps delivery was 28 percent in the episiotomy group and 4.2 percent in the no

episiotomy group (Lebrecque et al., 1997). Shiono and colleagues (1990) noted only that in their retrospective study of 24,114 women "the use of forceps in the absence of an episiotomy was rare (p.766)." In these and other studies, forceps delivery was associated with higher rates of third degree lacerations (Lebrecque et al., 1997; Shiono et al., 1990). The use of forceps was also associated with development of third degree tears in a retrospective analysis of women who sustained a third degree tear compared with a control group (Sultan et al., 1994). However, Ecker and associates (1997) found that despite the drop in episiotomy rates for operative vaginal deliveries, the incidence of third degree lacerations remained constant.

Primiparas women are at increased risk of undergoing episiotomy or incurring a perineal laceration during delivery (Hordnes & Bergsjo, 1993). An increased incidence of anal sphincter tears among primiparas has been reported (Poen et al., 1997). While the episiotomy rate was 50 percent in primiparas compared to 21 percent in multiparous women, in separate univariate analysis mediolateral episiotomy was associated with fewer sphincter injuries in primiparous women (Poen et al., 1997). Significantly higher episiotomy rates in primiparas have been reported (Hueston, 1996; Lebrecque et al., 1997; Shiono et al., 1990). Hueston (1996) noted that nulliparity was a strong independent predictor of episiotomy ([OR] 4.10, 95 percent [CI]3.59-4.68).

Some investigators have reported an increased risk of episiotomy and severe laceration with increasing birth weight (Shiono et al., 1990; Wilcox et al., 1989). Labrecque and colleagues (1997) noted that a higher proportion of women with episiotomy than without, had babies of higher birth weight. Increased birth weight was

also strongly associated with increased rates of severe perineal trauma. In a retrospective review of 8,647 deliveries, Hueston (1996) found that 13 percent of women receiving episiotomy had macrosomic babies compared to 10 percent with no episiotomy. An association between episiotomy and increased birth weight was found on further analysis.

Non Clinical Factors

Several studies have examined the influence of institutional and personal practices and beliefs of caregivers on the decision about whether or not to carry out episiotomy. Hueston (1996) examined the effect of care provider and institution on episiotomy rates in a retrospective study of 8,647 deliveries at five medical centres. Significant differences were found in episiotomy rates in sites considered to be low users of episiotomy (39%) and those sites considered to be high users (68 - 79%). Obstetricians had episiotomy rates similar to high user sites while midwives had rates similar to low user sites. After adjusting for clinical factors, site and caregiver specialty was still associated with episiotomy use (Hueston, 1996). Ruderman and colleagues (1992) reviewed 2,188 low risk deliveries, and reported significantly higher episiotomy rates for obstetricians compared to rates of family physicians. No significant group differences were noted in rates of third degree tears or intact perineums (Ruderman, Carroll, Reid, & Murray, 1992).

Wilcox and associates (1989) examined episiotomy rates at a primary care maternity centre where care was provided by certified nurse midwives, and a tertiary care teaching hospital where deliveries were primarily attended by physicians in training. Significantly higher episiotomy rates were found at the tertiary hospital. After

controlling for various clinical factors, women at the tertiary hospital were twice as likely to have an episiotomy as women at the primary care centre (Wilcox et al., 1989).

A post-hoc cohort analysis of physicians and patients participating in a RCT of routine versus restricted use of episiotomy was conducted to evaluate physicians' beliefs in relation to episiotomy use and birth outcomes (Klein et al., 1995). Of 43 physicians studied, those with favourable views of episiotomy tended to have higher episiotomy rates when compared to physicians who viewed episiotomy very unfavourably. Higher rates of intervention (ie. Oxytocin induction), severe perineal laceration, perineal pain, and less satisfaction with the birth experience were found in women under their care.

Psychosocial Implications

Recently, work has progressed on determining the psychological and interpersonal effects of various obstetrical interventions (Wooley, 1995b). Studies which have focused on women's satisfaction with their birth experience have provided insight into how obstetric interventions, such as episiotomy are perceived by women.

Simpkin (1986) surveyed a convenience sample of 159 women to determine the level of stress they experienced in relation to a number of childbirth events. Of the 118 women receiving episiotomy, 47 percent rated the procedure as being moderately stressful, and 17 percent rated episiotomy as being a highly stressful event. In a sample of 80 women who were interviewed regarding their expectations, experiences, and reactions to childbirth, 66 percent reported that their episiotomy had not been explained (McIntosh, 1989). The major sources of dissatisfaction that these women reported were the amount and types of intervention they were subjected to and the lack of explanation

of what was happening and being done to them in labour.

In a retrospective Australian survey (n=790), Brown and Lumley (1994) reported that among parous women, the use or nonuse of episiotomy did not affect satisfaction with care in childbirth. However, the use of episiotomy more than doubled the rate of overall dissatisfaction in nulliparous women. It must be noted that no statistical adjustment was made to address other confounding factors (Wooley, 1995b). Similar findings were obtained in a prospective British study (n=825 women) that was conducted to determine women's expectations and experiences of childbirth (Green, Coupland, & Kitzinger, 1990). The use of any of several intrapartum interventions, including episiotomy, was negatively correlated with the patient's overall satisfaction with the birth experience.

Other studies have reported little or no relationship between use of episiotomy and patient satisfaction (Drew, Salmon, & Webb, 1989; Jacoby, 1989). Drew and colleagues (1989) asked 224 women at one to four days postpartum to rank 40 items which were related to their care by their importance to the overall satisfaction with their care. 'Not having an episiotomy' seemed of little interest to the women and ranked 37th on the list. Jacoby (1987) noted however, that for those women in her study who had a desire to avoid episiotomy, satisfaction with how their labour was managed was higher if an episiotomy was avoided.

One British study has specifically focused on women's experiences of episiotomy (Kitzinger & Walters, 1981). In a non-representative sample, Kitzinger and Walters (1981) surveyed 1,795 women who had attended their prenatal classes. They reported that

the majority of women (66%) had never discussed episiotomy with a physician or midwife in the prenatal period. While the large majority of women (99.4%) had heard the term episiotomy and knew what it meant, 36 percent did not know why they had received an episiotomy (Kitzinger & Walters, 1981).

Summary

The efficacy of episiotomy in obstetric practice has been investigated. The postulated benefits of episiotomy including prevention of severe laceration, trauma to the pelvic floor, and trauma to the fetal head have generally not been supported. Some have reported the benefits of episiotomy in preventing anterior tears, and of mediolateral episiotomy in particular, in preventing third/fourth degree tears in nulliparous women.

Adverse effects of episiotomy including post episiotomy pain and dyspareunia, third/fourth degree extension, bleeding, and infection have been well documented. The clinical factors of forceps delivery, nulliparity and large baby seem to increase the incidence of episiotomy and severe perineal laceration. Non clinical factors such as institutional practices and caregiver attitudes have been shown to affect episiotomy rates. Psychosocial implications relating to episiotomy appear to be inconclusive from the research currently available and require further study.

CHAPTER 3

Method

Design

A descriptive survey was conducted to address the research questions and describe the characteristics, knowledge, and perceptions of women who had received episiotomy.

Sample

The sample for the study was taken from women giving birth at the Royal Alexandra Hospital, a tertiary care hospital, over a period of three months, from March 6 to June 6, 1995. Women who met the following inclusion criteria were asked to participate in the study:

1) a vaginal delivery
2) a healthy term infant
3) an episiotomy performed during this birth
4) an understanding of both spoken and written English
5) a telephone
6) were 16 years of age or older

Based on 1993 statistics, the vaginal birth rate at the Royal Alexandra Hospital was 3,710, with an episiotomy rate of 40.3 percent (Royal Alexandra Hospital, 1993). It was determined that a sample size of approximately 200 subjects would constitute at least 10 percent of the population of women undergoing episiotomy at this hospital, and could be obtained within a two month period. In actuality, the study period had to be extended by one month to enroll an appropriate sample size. Consideration had not been made for the high non English speaking population that accessed the hospital and many potential subjects were ineligible for this reason. As well, the episiotomy rate dropped to 34.7

percent in 1994 and to 29.5 percent in 1995 during the study period (Royal Alexandra Hospital, 1994,1995). This drop in episiotomy rates was not anticipated.

A total of 275 women received an episiotomy over the study period. Of these, 43 women did not meet the inclusion criteria, 33 women refused to participate in the study, and 4 women were discharged early, or discharged themselves prior to being approached to participate in the study. Nine women were lost to followup, and one interview schedule was lost when moving offices. The total number of participants was 185. A breakdown of reasons for exclusion, refusal, and loss to followup are found in Table 1.

Procedure

A letter outlining the study was sent to all physicians who practice obstetrics at the Royal Alexandra Hospital to inform them of the study (see Appendix A). This letter was followed by a meeting with the physicians who practiced obstetrics, to discuss the study and address any concerns. During this meeting, information was presented regarding the "Indication For Episiotomy Form" (see Appendix B), which was to be completed by the attending physician at the time of delivery. Inservice was provided to staff nurses and ward clerks on labour and delivery and on the postpartum unit, informing them of the study and gaining their support and cooperation for the study.

Every morning for the duration of the study, the researcher or her assistant visited the postpartum unit to recruit subjects. It was imperative that all potential subjects be accounted for and invited to participate in the study. Potential subjects were initially approached by a staff nurse on the unit, asking them for permission for the researcher to speak to them about the study. The researcher then explained the study to the woman and

she was given the information sheet and consent form to review (see Appendix C). The researcher returned later, answered any remaining questions, and obtained written consent from the subject.

Demographic and birth data were extracted from the chart on to the demographic data form (Section I) of the interview schedule. The "Indication for Episiotomy Form" was also collected from the woman's medical record at this time.

A structured telephone interview was conducted with each subject. Every attempt was made to conduct the interviews between the third and fourth postpartum day. Sixty-four women (34.6 %) were interviewed on the third postpartum day, while 84 women (45.4%) were interviewed on the fourth postpartum day. An additional 25 interviews (13.5%) were conducted at day five postpartum. Ten women (5.4%) were interviewed after day five. Reasons for the delay in the interview included inopportune timing for the woman, or they were not found home at the time of telephone contact. Two women were interviewed on postpartum day two.

The responses to the questions were hand recorded on an interview schedule for each of the participants. Initially it was thought that the first thirty interviews would be tape recorded for purposes of determining interrater reliability. However, the great majority of interviews were tape recorded. The reason for this was so that ongoing interrater reliability could be tested, and the researcher could review answers which had been hand recorded for greater clarity and accuracy if necessary. While this did not happen often during the data collection, there was occasion to listen to the taped interview to ensure complete answers to the questions on the interview schedule. One

interview was terminated prematurely due to interference from a family member. The data that was obtained, although not complete, was used in the results of the study.

Women were asked to set aside 20 to 30 minutes for the interview, but most of the interviews were completed within 15 to 20 minutes (63.8 %). Forty-five interviews (24.3%) lasted between 21 and 25 minutes. An additional 13 interviews (7.0%) lasted 26 to 30 minutes, and two interviews (1.1%) lasted between 31 and 35 minutes. Six of the interviews (3.2%) lasted longer than 35 minutes and one interview was completed in less than 15 minutes.

Instrument

The interview schedule used for the data collection was revised from the original questionnaire developed by Kitzinger and Walters (1981). A copy of the questionnaire was faxed by the author from London, England to the researcher. The author could not provide any information regarding measures of validity or reliability of the tool. The questionnaire was revised to reflect current practices around episiotomy from the North American perspective. Additional questions were formulated to address all the research questions that had been identified as a result of the literature review.

The interview schedule consisted of three sections (see Appendix D). Section I contained questions relating to the birth. This information was manually extracted from the woman's medical record. Section II contained 49 questions, one of which was open ended, relating to the episiotomy. Section III consisted of the demographic profile. Information from Section II and III was obtained from the subject through the telephone interview. An additional form entitled "Indication For Episiotomy" was devised and

placed on the woman's chart to be completed by the attending physician at the time of delivery.

Validity and Reliability

Content validity was assessed by having two nurse researchers, a midwife, an obstetrician, an obstetrical nurse, and a postpartum woman who had received an episiotomy, examine the questions and provide feedback.

A pilot study was carried out on the first twelve interviews. At various times during the pilot study some questions were altered for greater clarity and other questions were added where it was noted that more information was required to answer the research questions. Although data was not complete, the data obtained from the pilot study was included in the analysis for the total sample where the wording or intent of the question was not altered.

Interrater reliability between the researcher and her assistant was assessed throughout the study. Initially two of the interviews were rated by an obstetrician and two by an obstetrical nurse. This was done by randomly selecting interviews and having these individuals listen to the tape and record the responses on a clean interview schedule. This schedule was then compared to the original interview for accuracy. Fifteen interviews were assessed for interrater reliability. The lowest percentage of correct answers between the interviewer and the rater was 87.7 percent, and the highest was 100 percent. The average percentage of correct answers was 94.3 percent. See Table 2 for a breakdown of percentages.

Data Analysis

Computer analysis was carried out using SPSS 7.5 for Windows. Simple descriptive statistical analysis was done to report demographic data and each of the questions in the survey. This analysis was used to answer the first seven research questions. Content analysis of the open ended question involved examining, comparing, and categorizing the data. The researcher and a research assistant read the responses and discussed and categorized the responses. The categories were then collapsed where there was agreement that the meaning was similar in two or more categories. If agreement could not be reached on a particular response, the thesis supervisor was asked for input until a consensus was reached. A numerical value was then given to the categories and simple frequencies were applied.

In order to answer research question eight, simple correlations were carried out between the demographic variables and the interview questions. Where appropriate, correlations were also carried out between individual research questions ($p<=0.05$).

The Population Lab, University of Alberta, advised that analysis and ranking of occupations be done using the revised Pineo-Porter-McRoberts Socioeconomic Classification of Occupations for the 1981 Census (Pineo, 1984, McMaster University). The Hollingshead Formula (Hollingshead, 1975) which was initially proposed to rank socioeconomic status was found to be outdated and did not reflect Canadian occupations.

Ethical Considerations

Approval for the research project was obtained from the Ethics Review Committee of the Faculty of Nursing, University of Alberta and the Ethics Review

Committee of the Royal Alexandra Hospital. Subject anonymity was maintained by having a number replace the name on the interview schedule. There is no mention of names or identifying characteristics in the data analysis or discussion of results.

CHAPTER 4

Results

The purpose of this study was to describe women's knowledge and perceptions about episiotomy in the first three to four postpartum days. The results of the data analysis will be presented in this chapter. The demographic and birth characteristics of the sample will be described and the research questions will be addressed.

Sample

Demographic Characteristics

The sample consisted of 185 women. The majority of women studied were in the age groups of 25 to 29 years (31.4 %) and 30 to 34 years (24.9 %). Thirteen percent of women were between the ages of 16 and 19, and an additional 20 percent were between 20 and 24 years of age. Seventeen women (9.2 %) were between 35 and 39 years old and only three women (1.6%) were 40 years or older. The education level of the women varied, with 19.4 percent having partial high school or less, and 30.3 percent having a high school diploma. Those reporting a partial college/university education were 36.8 percent and an additional 13 percent had obtained an undergraduate university degree or higher.

One hundred and seventeen women (63.2%) were married. An additional 17.3 percent lived in common-law relationships. Thirty-three women (17.8%) were single and one woman (0.5%) was separated from her partner.

The ethnic background of the majority of women was Caucasian (80.7%). Oriental women accounted for 6.5 percent of the sample, Aboriginal women for 4.9

percent, and East Indian women for 3.3 percent. Women of Latin American and African decent accounted for the remaining 2.7 and 1.6 percent of women, respectively.

Combined family income levels were fairly evenly distributed between $10,000 and $80,000, with the largest number of women (35%) having combined incomes of between $30,000 and $59,000. Thirty-nine women (21%) either refused to answer the question or reported that they did not know their combined income level. Distribution of incomes are found in Table 3.

Occupations for the mother and her partner were ranked according to the Revised Pineo-Porter-McRoberts Socioeconomic Classification of Occupations for the 1981 Census (McMaster University, 1984). This tool was used to rank the occupations in one of 16 socioeconomic categories. Table 4 provides a ranking of occupations for the women and their partners.

Labour and Birth Characteristics

Approximately half of the women receiving an episiotomy were primiparas (57.3%). While the majority of women went into labour spontaneously, induction of labour was carried out in 64 women (34.6%). Spontaneous vertex delivery occurred for 110 women (59.5%), while 32 women underwent forceps delivery (17.3%) and 40 women a vacuum extraction (21.6%). One woman required the use of both forceps and vacuum extractor for delivery. One woman delivered a breech spontaneously, and one woman delivered breech aided by forceps.

Length of second stage was less than 30 minutes for 38.4 percent of women, and less than 45 minutes for 49.8 percent. Seventy-six women (41%) had documented second

stage of greater than 60 minutes, with 28 women (15.1%) having a second stage of greater than 120 minutes.

One hundred and thirty four women (72.8%) received a midline episiotomy. Fifty women (27.2%) received a mediolateral episiotomy. Rates of third and fourth degree tears were 10.8 percent and 6.5 percent, respectively for midline and mediolateral episiotomies. Second degree lacerations were documented for ten women (5.4%) who received a midline episiotomy, and for eight women (4.3%) who received a mediolateral episiotomy. Sixty women (32.4%) reported to have received an episiotomy with past delivery(s).

The majority of women (71.3%, n=121) reported that their births were attended by an obstetrician. Family physicians attended 22 births (11.9%), while residents/interns attended 21 births (11.4%). One woman indicated she was attended by her family physician and an obstetrician. Nine women (4.9%) stated that they did not know who actually conducted the delivery.

One hundred and sixty-two women (87.6%) received some form of pain medication during their labour. Ninety-five women (51.3%) were given more than one pain medication, such as a narcotic and inhalation, or a narcotic and epidural. Narcotic analgesia was administered to 131 women (70.8%). Fifty-five women (29.7%) received an epidural during labour. Entonox inhalation was used by 88 women (47.6%). Two women had a spinal anaesthetic. Twenty-three women (12.4%) used no pain medication in labour.

The 'indication for episiotomy' form was completed following delivery by the

attending physician for 160 women (86.5%). Physicians reported more than one indication for the episiotomy in 62 cases (38.8%). However, where more than one indication was given, ranking of indications occurred in 27 cases (43.5%). The indication reported most frequently for performing the episiotomy was to prevent a tear or control an existing tear (40%). Other indications included instrument delivery, fetal distress, to speed delivery, and prolonged second stage. A list of all indications provided by physicians is found in Table 5.

Findings Related to the Research Questions

Information and Consent around Episiotomy

The majority of women were informed that they might receive an episiotomy. Fifty-seven women (30.8%) reported that they had discussed episiotomy with their doctor during their pregnancy. Sixty-two women (33.5%) reported that they had discussed episiotomy with another health professional.

Sixty-eight women (36.8%) in the sample reported that they had expected to receive an episiotomy. One hundred and ten women (59.6%) reported that they were aware of consenting to the possibility of an episiotomy when they signed the consent for medical treatment on admission to hospital.

Women's Knowledge about Episiotomy

Of the total women in the study, 153 (82.7%) had heard the term episiotomy before they started their labour. One hundred and forty-eight women (80%) reported that they knew the meaning of the term 'episiotomy.' However, when asked to define the term 'episiotomy' in their own words, 139 women (75.1%) provided a more complete

response, while 39 women (21.1%) provided an incomplete answer. An additional 6 women (3.2%) reported that they did not know the answer. One woman gave no response to the question. The answers were considered complete if the word 'cut' or 'incision' was used in relation to the area of the body where the episiotomy was performed, or if the indication for the episiotomy given by the woman displayed understanding of the procedure. One woman defined episiotomy as "incision to make it easier for head to pass through", and this definition was considered complete. An example of an incomplete response was "when they have to make an incision." While the term incision was used, there was no way of knowing whether the woman understood where or why it might be performed.

One hundred women (54.1%) reported that they had done some sort of activity or exercise to get their perineum ready for the delivery, but responses to what kind of exercise they had done were reported for only 97 of these women. Seventeen women (17.5%) reported doing more than one exercise. The most common exercise done was Kegels or 'pelvic floor exercises', and this was reported by 83 women (85.6%). Perineal massage was done by nine women (7.8%). Nine women (9.3%) reported aerobics/walking, and seven women (7.2%) reported squatting/taylor sitting as other exercises to target the perineum. Relaxation exercises were done by seven women (7.2%).

Women's Perceptions of Events Preceding Episiotomy.

One hundred and ten women (59.5%) reported that they had pushed in the semi-sitting position during the delivery. Thirty two women (17.3%) reported being on their

back with legs in stirrups, while another 33 women (17.8%) pushed on their backs with legs flexed. Six women reported that they pushed in a semi-sitting position with legs in stirrups. One woman pushed in a squatting position, and two women could not remember what position they were in when they were pushing.

Sixty-eight women (36.8%) reported that they had been pushing for less than 30 minutes before their episiotomy was cut, with 46 percent pushing for less than 45 minutes. Twenty-eight (15.1%) women reported pushing for between one and two hours, and 19 women (10.3%) reported pushing for over two hours before receiving an episiotomy. Forty-five women (24.3%) were not sure/could not remember how long they had pushed prior to the episiotomy being performed. Fifty-one women (27.6%) reported that they had requested that the time to delivery be shortened.

More than half of the women (62.2%, n=115) reported that they had received an injection of local anaesthetic before their episiotomy, and 99 women (53.5%) reported that they had received local anaesthetic prior to being sutured. Twenty-one women (11.4%) and 27 women (14.6%), respectively did not know if they had received local anaesthetic prior to the episiotomy and prior to being sutured. Thirty-one women (16.8%) reported that being sutured was painful or very painful, while 66 women (35.7%) reported the suturing as being slightly painful. When asked whether they had told the doctor that the suturing hurt, 62 women (33.5%) reported that they had verbalized the pain/discomfort from being sutured to the physician. One woman could not remember whether she had expressed her pain to the care provider. Table 6 provides a list of physician responses to the women's verbalization of pain during suturing.

When asked in what direction the episiotomy had been cut, 78 women (42.2%) reported that they had received a midline episiotomy, while 41 women (22.2%) indicated the cut had been lateral. One woman stated she had been cut in both midline and lateral directions. Sixty-five women (35.1%) could not determine in which direction the episiotomy had been cut.

One hundred and twelve women (60.5%) reported that their delivery had been natural. Twenty-seven women (14.6%) had forceps and 39 women (21.1%) vacuum extractor to aid in delivery. Six women reported that both instruments had been used. One women reported that she did not know if her birth had been natural or assisted by instruments.

Less than half of the women (46.5%, n=86) reported that they were given a reason for having their episiotomy. Four women stated they did not remember or did not know whether a reason had been given. The most common reason that they were given was shoulder dystocia, large baby, or large head (21.6%). Three women stated that they themselves, requested the episiotomy. Table 7 provides a list of the reasons women reported they were given for having their episiotomy.

Physical Effects of Episiotomy on Women.

Women were asked to describe how their episiotomy felt in the first few days after the baby was born. One hundred and four (56.2%) of the 185 women responded with more than one description of how their episiotomy felt. The most common description was painful/sore/very sore (68.1%, n=126). Other descriptions reported included swollen/tight/pressure, tender/uncomfortable, burning/stinging, throbbing, and

bruised. The descriptions and their reported frequencies are found in Table 8.

When asked if they were able to sit comfortably after the delivery, 97 women (52.7%), of 184 answering the question reported that they could sit comfortably if they were careful. Fifty women (27.2%) reported that they could only sit with difficulty, while 18 women (9.8%) reported that they could not sit comfortably at all. Nineteen women (10.3%) reported that they could sit comfortably.

Of all the women studied, 172 women reported that there were activities which made the episiotomy feel worse. One hundred and twenty four women reported more than one activity which made the episiotomy feel worse. The majority of women reported that their episiotomy felt worse when sitting. Other activities which made the episiotomy feel worse included: various position changes, walking, urinating, having a bowel movement, coughing/sneezing/lifting, standing, and breastfeeding. These activities and their reported frequencies are illustrated in Table 9.

One hundred and sixty-one women reported that they had experienced some pain or discomfort from the episiotomy. They were then asked to rate the level of pain they had felt, and 181 women responded to this question. On a scale of zero to 10, with zero being no pain and 10 being the worst pain possible, 103 women (56.9%) rated their pain as five or greater. Fifty-one women (28.2%) rated their pain as seven or greater. Results of the pain scale are found in Figure 1.

Effects of Episiotomy on Baby Care.

Fifty-eight (34.1%) of 170 women reported that the episiotomy affected their ability to care for their baby. Fourteen women (24.1%) reported that their episiotomy

affected their ability to care for the baby always, 15 women (25.9%) reported the episiotomy affected their ability often, and a further 29 women (50%) reported that the episiotomy occasionally affected their ability to care for the baby.

The most common effect of the episiotomy on baby care, which was reported by 46 women (83.6%), was their ability to hold, cuddle, and feed the baby. Having their movement restricted was reported by 41 women (74.5%), while diapering and bathing the baby were reported by five women (9.1%). This question was not asked of two women who gave their baby up for adoption.

Effects of Episiotomy on Breastfeeding

Women were asked if the episiotomy affected their ability to breastfeed. Of the 137 women who breastfed, 44 women (32.1%) reported that their episiotomy affected their ability to breastfeed often or always. Another 35 women (25.5%) stated that their episiotomy affected their ability to breastfeed occasionally.

Of the 80 women who responded to the question of how the episiotomy affected their ability to breastfeed, 29 women responded with more than one answer. The most common response, reported by 66 women (82.5%), was being able to get into a comfortable position to breastfeed. Only being able to breastfeed in a side lying position was reported by 13 women (16.3%), soreness when sitting for long periods by 16 women (20%), being able to relax by 9 women (11.3%), and being able to get the baby latched for feeding by 7 women.

Postpartum Support for Women Receiving Episiotomy

When asked what treatments they had been given for their episiotomy, all but four women had been given some form of treatment for their episiotomy in the hospital (n=179). Of these, 129 (73.7%) reported using more than one treatment. The peri bottle was the most common treatment and was used by 143 women (81.7%). Other treatments commonly offered included 'pain killers' (62.9%) , sitz bath/bidet (32%), ice packs (28.6%), and stool softeners (6.9%). Three women were given an air ring to sit on. One woman used a blow dryer, and one used a homeopathic cream (arnica) which she applied to the perineum.

Women were then asked about the frequency and effectiveness of the treatments they were offered/given for their episiotomy. The peri bottle, which is used to spray warm water over the episiotomy, was the treatment used most often by women (85.7%). Approximately half the women found this treatment to be very effective in bringing relief to their episiotomy. Table 10 provides a breakdown of the treatments and the frequency of their use. The responses of women to the effectiveness of the treatments are found in Table 12. The number of women responding on the utilization and effectiveness of various treatments is less than those who responded to the question of what treatments they were given. There are two possible reasons for this: 1) The questions relating to utilization and effectiveness of the treatment were added and modified during the pilot study. Therefore the initial respondents did not have the opportunity to answer these questions. 2) Women did not report the utilization and effectiveness of all of the treatments that they reported to have been given.

Of all the women in the study, 139 women (75.1%) reported that they had received some form of teaching about how to care for their episiotomy. For those women that did receive teaching, 36 women (25.9%) reported that they had were taught by more than one health care professional. One hundred and thirteen women (81.3%) reported that the hospital nurses provided the information about how to care for their episiotomy. Twenty seven women (19.4%) received information from their doctor. Twenty-four women (17.3%) reported that the early discharge nurse provided the information. Four women received information from their prenatal instructor, and three women from pamphlets.

Women were asked what information they had been given about how to care for their episiotomy. Of the 139 women who had received information, many women provided more than one response to the question. The most common information women were given was to use the peri bottle each time they went to the bathroom, soak in a bath tub or use the shower, keep the episiotomy clean, and use cold compresses on the episiotomy. A complete list of the information given to women is presented in Table 13.

Women's Feelings about Episiotomy

When asked how they felt about having an episiotomy, all women responded to the question, with many women giving more than one response. One hundred women (54.1%) reported that they did not mind/did not give any thought to having the episiotomy. Fifty-one women (27.6%) reported that they felt the episiotomy was necessary. Twenty-two women (11.9%) reported that they were relieved when the episiotomy was done, and 13 women (7.0%) reported that they accepted having the

episiotomy. An additional 14 women (7.6%)were upset/angry about having an episiotomy, and 14 women (7.6%) reported that they did not want the episiotomy done. Eleven women (5.9%) felt disappointed with having an episiotomy and four women reported being scared. Five women (2.2%) reported that they trusted the doctor's judgement about the episiotomy.

All 185 women responded to the question of how they felt about the episiotomy at the time it happened. Many women provided more than one answer to this question. Fifty four women (29.2%) felt the episiotomy was necessary. Fifty two women (28.1%) reported that the episiotomy did not bother them. Twenty four women (13%) reported that they were preoccupied/concentrating on pushing, while another 24 women (13%) felt relieved because labour would be over soon. The other feelings women reported included feeling frightened, scared, or uncomfortable (7.6%), while 2.7 percent trusted the doctor. Two women reported that they did not want the episiotomy done. Two women questioned whether the episiotomy was necessary. One woman reported that she refused to have the episiotomy, but it was done anyway. It must be noted, that in examining the frequency of responses, the frequency of the various feelings that the women reported about receiving their episiotomy were inconsistent with the frequency of responses women reported at the time that the episiotomy happened.

When asked whether they had looked at the episiotomy, 51 women (27.6%) responded that they had looked. When asked about their reaction to how the episiotomy looked, 19 women (37.3%) reported that it looked better than expected. Fifteen women (29.4%) reported that the episiotomy looked as expected, while 14 women (27.5%)

reported that the episiotomy looked worse than expected. Three women reported that they were unsure of their reaction as they could not get a good look at the episiotomy.

Of the 134 women who reported that they had not looked at their episiotomy, 124 provided a reason as to why they had not looked, with 14 women (11.3%) reporting more than one response. The most common reason was the awkward position needed to visualize the episiotomy (28.2%, n=35). Other reasons included 'being scared to look' (21.8%), not interested/haven't thought about it (24.2%), comfortable, so no need to look (12.1%), too busy (11.3%), it may hurt more to look (10.5%), and too sore (3.2%).

Finally, women were asked to describe any further experiences or feelings around their episiotomy in an open ended question. Many women again responded with more than one answer to this question. Sixty-one women stated that they had no other experiences or feelings to share. Forty-three reported that they felt the episiotomy was necessary. Other feelings/experiences included pain concerns, need for more information and teaching about episiotomy, healing concerns, expressing and being glad to have the episiotomy, trusting doctor's judgement, and healing well/progressing fine. See Table 13 for reported frequencies.

Adequacy of Information and Satisfaction with Decisions Around Episiotomy

Women were asked to describe the adequacy of the overall information they received during their pregnancy in relation to their episiotomy. Of the 184 women who answered this question, 93 women (50.5%) rated the adequacy of the information as adequate or very adequate. Seventy-four women (40.2%) rated the information as somewhat or very inadequate. Seventeen women (9.2%) were uncertain about the

adequacy of the information.

Women were then asked how they would describe the adequacy of the information they received on how to care for their episiotomy. Of the 174 women who responded to this question, 105 women (60.3%) described the adequacy of information as being adequate or very adequate. Fifty-seven women (32.8%) described the adequacy of the information as being somewhat or very inadequate. Ten women (5.7%) reported that they were uncertain about the adequacy of the information that was provided to them on how to care for their episiotomy.

Finally, women were asked to rate their level of satisfaction with their involvement in the decision to have an episiotomy. One hundred and twenty-three women (67.2%) reported being satisfied or very satisfied with their involvement in the decision. Twenty-four women (13.1%) reported being somewhat or very dissatisfied in their involvement in the decision to have an episiotomy. An additional 36 women (19.7%) reported that they were uncertain about their level of satisfaction.

Demographic Variables Related to Women's Knowledge and Perceptions about Episiotomy

Correlations between the demographic variables and individual questions were conducted where appropriate. Correlations among age, parity, education, and socioeconomic status and those questions relating to knowledge and perceptions around episiotomy were not significant. Parity did however correlate with the type of delivery ($r=-0.23$, $p=0.002$).

Ethnicity and women's knowledge of the meaning of episiotomy was correlated

(r=0.29, p=0.01). Ethnicity was also associated with the negative feeling, 'I was upset about receiving the episiotomy' (r=0.15, p=0.05). The correlation between ethnicity and feelings of ambivalence toward receiving the episiotomy was significant (r=-0.15, p=0.05).

Having discussed episiotomy with their doctor correlated with women's knowledge of the meaning of episiotomy (r=0.30, p=0.05). Maternal definition of episiotomy correlated with having discussed episiotomy with their doctor (r=0.23, p=0.01). Previous experience with episiotomy (received episiotomy in the past) correlated with the feelings of 'being upset' (r=0.28, p<=0.01), and ' not wanting it done' (r=0.34, p<=0.01) in relation to having the episiotomy.

The adequacy of the information that women received about their episiotomy at the time of birth correlated with the adequacy of information received about caring for their episiotomy (r=0.35, p<=0.01), and the adequacy of overall information received about their episiotomy (r=0.35, p<=0.01). Adequacy of information at the time of birth correlated with the level of satisfaction with the involvement in the decision to have an episiotomy (r=0.44, p<=0.01). The adequacy of the overall information received also correlated with the level of satisfaction with women's involvement in the decision to have an episiotomy (r=0.30, p<=0.01).

Chi square analysis was carried out on parity (primip/multip) to determine whether it was related to the type of birth. There was a significant difference between parity and the type of delivery ($\chi 2$=292.632, df=5, p<0.0001). Primiparous women had higher observed forceps and vacuum deliveries than expected, and lower than expected

numbers of spontaneous deliveries. Multiparous women, on the other hand, had higher than expected numbers of spontaneous deliveries and lower observed forceps and vacuum deliveries than were expected. See Table 14 for expected and observed counts of forceps and vacuum deliveries in primiparous and multiparous women.

Chi square analysis was also carried out on type of episiotomy (mediolateral/midline) and the incidence of third/fourth degree lacerations. There was a significant difference between the type of episiotomy and the number of third/fourth degree lacerations ($\chi 2=38.348$, df=1, $p<0.0001$). The observed number of third/fourth degree lacerations was greater for both midline and mediolateral episiotomy than was expected. Table 15 shows the observed and expected counts for third/fourth degree extensions on type of episiotomy.

CHAPTER 5

Discussion of Results

The purpose of this survey was to describe women's knowledge and perceptions about episiotomy in the first three to four postpartum days. One hundred and eighty-five women were interviewed by telephone between March 6 and June 6, 1995. Data were coded and analysed using simple frequencies and correlations where appropriate for the following research questions:

1. Are women informed that they might have an episiotomy?
2. Do women consent to the possibility of an episiotomy?
3. What do women know about their episiotomy?
4. How does episiotomy affect postpartum functioning?
5. How does episiotomy affect breastfeeding?
6. What support is given to women in the postpartum period in relation their episiotomy?
7. How do women feel about their episiotomy?
8. How do the demographic variables of age, parity, education and socioeconomic status affect women's knowledge and perceptions about episiotomy?

Labour and Birth Characteristics

Over half of the women receiving episiotomy were primiparas. Instrument delivery occurred for 40 percent of women. A significantly greater than expected number of instrument deliveries was found in primiparous women. In previous retrospective studies, rates of instrument delivery, in particular forceps, and nulliparity were found to be associated with increased use of episiotomy or perineal laceration (Labrecque et al., 1997, Shiono et al., 1990).

A significant difference was also found in the number of third/fourth degree lacerations between mediolateral and midline episiotomy. The number of third/fourth

degree lacerations was greater than expected in both the midline episiotomy group and the mediolateral episiotomy group. Findings support previous studies which showed increased rates and a strong association between midline episiotomy and third/fourth degree extensions (Helwig et al., 1993; Klein et al., 1993; Labrecque et al., 1997). However, mediolateral episiotomy has been found to have a protective effect against third/fourth degree extensions in primiparous women (Helwig et al., 1993; Poen et al., 1997), which is inconsistent with findings in this study. No attempt was made to adjust for other variables, such as instrument delivery, which may have affected these rates.

While all the women in the study received episiotomy, many women also underwent other obstetric interventions during the course of their labour. These interventions included induction of labour, use of narcotic analgesic and epidural, and instrument delivery. It has been documented that physicians who have favourable attitudes toward episiotomy have higher rates of episiotomy and also have higher rates of other obstetric interventions (Klein et al., 1995).

Most women in the study were attended for birth by an obstetrician. Authors of previous studies have noted that site and caregiver specialty have been associated with episiotomy use (Hueston, 1996). Obstetricians are more likely to perform episiotomy than family physicians (Ruderman et al., 1992) or midwives (Hueston, 1996), and tertiary centres have been found to have higher episiotomy rates than primary care centres (Wilcox et al., 1989). However, in the present study, no attempt was made to determine the level of obstetric risk of these women undergoing episiotomy and perhaps requiring the care of an obstetrician.

Based on the length of second stage of labour, episiotomy was performed on almost half of the women within the first 45 minutes of pushing. A possible reason for the frequency with which episiotomy was done soon after dilatation of the cervix is fetal distress, although this was cited as an indication for episiotomy in only 20 percent of women. The indication given for some women was to speed delivery, although no reason was given as to why. Klein and associates (1993) found that in restricting episiotomy to specific indications, the length of second stage was nine minutes longer for primiparous women, compared to the liberal episiotomy use group. No differences in the length of second stage for multiparous women was found between groups. It would seem that episiotomy would have little benefit in speeding delivery in multiparous women. Another reason for observing this finding in this study may be related to hospital routines around length of second stage and the management of labour (Kitzinger, 1981). The arbitrary time limit that physicians frequently impose on the length of second-stage labour has been found to contribute to increased use of episiotomy (Sleep & Grant, 1987).

The most common indications cited by physicians for performing an episiotomy were to protect against a tear or control an existing tear, instrument delivery, and fetal distress. These findings are consistent with those of Klein and associates (1994) where severe tear anticipated and fetal distress were the most common indications cited. These findings are important for those interested in helping physicians reduce episiotomy rates (Reynolds, 1993). While a tight perineum tends to be the most common indication for episiotomy, it is one of the areas in which the biggest gains can be made by someone wanting to reduce the episiotomy rate (Hoult, 1981).

Information and Consent Around Episiotomy

Less than half of the women in the study had discussed episiotomy with their physician, and this finding is consistent with a previous survey where rates of 33 percent were reported (Kitzinger & Walters, 1981). It is interesting to note that similar numbers of women did discuss episiotomy with another health professional in the prenatal period. It is generally accepted that most women will attend some type of prenatal class during their pregnancy, and one could speculate that some physicians assume that adequate discussion is given to this intervention at this time.

While the majority of women were aware that they were consenting to the possibility of an episiotomy on admission to hospital, less than half of the women expected to receive an episiotomy. In one previous study it was found that a large proportion of women who experienced an episiotomy did not expect it, however this did not affect their level of satisfaction with labour (Slade, MacPherson, Hume & Maresh, 1993). Therefore, women's expectations of not receiving an episiotomy may have had little effect on the experiences they reported about their episiotomy.

Women's Knowledge About Episiotomy

Most women in the study had heard the term episiotomy and knew what it meant. However, it is difficult to determine whether women had the knowledge required to avoid an episiotomy. Almost all of the women pushed in the traditional recumbent or semi recumbent position, many with legs flexed, and some with legs in stirrups. Researchers suggest that women who deliver in positions other than the recumbent position are less likely to have perineal trauma (Lydon-Rochelle, Albers, & Teaf, 1995; Smith, Ruffin, &

Green, 1993). The squatting position has been found to reduce perineal laceration and the incidence of episiotomy (Golay, Vedam, & Sorger, 1993). Women may be more likely to assume alternative birthing positions such as squatting or kneeling, and potentially avoid an episiotomy, if this information was provided to them in the prenatal period (Gupta & Lilford, 1987).

Almost half of the women reported pushing for 45 minutes or less before an episiotomy was performed. The reason for this finding may be due to the way the second stage is managed, where women are directed to forceful breath holding and bearing down in an effort to shorten the second stage. While these methods have been found to offer no benefit (Sleep et al., 1989), spontaneous bearing down efforts have been found to ease the head out slowly and decrease the incidence of spontaneous lacerations and episiotomy (Yeates & Roberts, 1984).

Perineal massage in the antenatal period has also been found to have some benefit in reducing episiotomies (Shipman, Boniface, Tefft, & McCloghry, 1997). However, very few women in the study reported using perineal massage, but rather reported other types of aerobic activity and pelvic floor exercises as methods of perineal preparation.

Consequences of Episiotomy for Women

Post episiotomy pain. The most bothersome adverse effect of the episiotomy for many women in the study was pain from the incision. Many women experienced varying degrees of pain both during and in the days following their episiotomy. For those women who expressed their pain during the suturing of the episiotomy, only half were offered a anaesthetic. For others, the pain from suturing was somewhat minimized by the health

care provider, with varying responses such as 'it won't be long', or offering distracting conversation.

Perhaps the most significant finding was that almost thirty percent of women reported levels of pain greater than seven, even though the pain of labour was still fresh in their minds. Reported descriptions of how the episiotomy felt, including very sore, burning and throbbing, reinforced these findings, and were similar to descriptions of postepisiotomy pain given by women in other studies (Klein et al., 1993). It was not uncommon for women to comment when asked about their experiences around episiotomy: "its the pain (from the episiotomy) after that's so bad, that I was not aware of." Another woman related the pain from her episiotomy to the pain of labour: "... I thought the pain would be gone once the labour was done. So its basically the pain."

For many women the pain from the episiotomy hampered their activity level. Common activities such as sitting, walking, and position changes were affected. One women noted that "I feel like its too much pain. Its hard to sleep and move. Everything's hard. Too much pain." The discomfort involved with urinating and having bowel movements, was also expressed. "Going to the bathroom one way or the other has been very challenging." These findings support previous studies where women undergoing episiotomy reported more postoperative pain with activities of daily living and a higher incidence of prolonged dyspareunia than women who do not have episiotomies (Sleep & Grant, 1987; Walker, Farine, Rolbin, & Ritchie, 1991).

Episiotomy Effects on Breastfeeding and Baby Care. Over half of the women in the study reported that the episiotomy affected their ability to breastfeed. Of major

importance was the inability of many of the women to sit comfortably due to the pain from the episiotomy. Some women were forced to assume other positions to breastfeed, "I have to lay down to breastfeed, I can't sit to feed." The initial days postpartum are critical for successfully initiating breastfeeding, and for many of these women the postepisiotomy pain interfered with their ability to relax and get comfortable enough to breastfeed. Kitzinger and Walters (1981) note that the pain caused by episiotomy may interfere with the start of breastfeeding. As well, severe pain in a breastfeeding mother may result in insufficient milk production and milk transfer to the baby, thus putting the baby at risk (Francis, 1997). Although analgesics compatible with breastfeeding were available to provide pain relief, perhaps many women were reluctant to take them because they were afraid that they might affect the baby. Over half of the women in the study reported only occasional use of analgesic for the postepisiotomy pain. The need for education of breastfeeding women in this area cannot be underestimated.

For some women in the study, their ability to care for their baby was hampered by the pain from the episiotomy. The inability to hold, cuddle and feed the baby, reported by many women does little to promote bonding and may adversely affect a new mother's self confidence in her ability to provide care for her newborn. The pain experienced from episiotomy may thus interfere with a mother's initial relationship with her baby (Kitzinger & Walters, 1981).

Postpartum Support for Women Receiving Episiotomy

Almost all women in the study were offered a variety of treatments in the postpartum period to relieve perineal discomfort and promote healing of the episiotomy.

The most common treatments offered were peri bottle (squirt bottle filled with warm water and sprayed on the perineum), oral analgesics, sitz baths, and ice packs. Most treatments were used in combination. The women in the study reported using the treatments in varying frequencies and with varying degrees of relief.

The treatments offered to women in this study are consistent with other studies where warm baths, ice packs, and oral analgesics were found to be the most common treatments offered (Harris, 1992; Sleep & Grant, 1988). However, while a variety of treatments have been recommended for the prevention and treatment of perineal pain following childbirth, little research has been conducted into their effectiveness (Sleep, 1990). The use of ice packs has been found to bring short term relief to perineal pain. Concerns are raised, however, that the accompanying vasoconstriction may actually delay tissue healing in the long term, so its use should be approached with caution (Harris, 1992; Sleep & Grant, 1988).

The use of warm baths was reported by 90 percent of women in one study to bring some relief of perineal discomfort (Sleep & Grant, 1988). The use of warm baths was not reported to be used by women in this study during their hospital stay. The reason for this finding may be that showers are more available on the postpartum unit. Sitz baths and peri bottles which involve the use of warm water and provide a means of cleaning the perineum were used often by the women and found to be effective in promoting comfort to the perineum. While oral analgesics were offered to the majority of women, over half of these women used them only occasionally. It is not known if this was due to lack of pain or concern about analgesic effects on the breastfeeding baby.

There was a dearth of information offered to women on caring for their episiotomy. Much of the information women reported receiving was consistent with what was offered as treatment in the hospital. Some of the advice offered, such as, the use of a ring to sit on and a blow dryer for drying the perineum have been reported to be ineffective, by authors who were of the opinion that their use may bring more harm than good (Sleep, 1990; Harris, 1992). In reviewing findings from this study, there is little evidence to support the nursing practices and advice that women in the study received relating to perineal care in the postpartum period.

Perceptions and Feelings about Episiotomy

Despite the high levels of pain and interference with daily living reported by women in the study, many women felt that the episiotomy was necessary and was perceived as required to have a healthy baby, or to prevent having a jagged tear. Many women also expressed feelings of relief and happiness with the performance of an episiotomy, linking the procedure with shortening the length and therefore the pain of labour. Feelings of ambivalence toward having the episiotomy were also common. Many women reported that they did not mind or did not give any thought to having the episiotomy. These findings are congruent with one previous study where 'not having an episiotomy' seemed of little interest to women, ranking 37 on a list of 40 items relating to their care. The authors concluded that there is little basis for the adverse public attention given to obstetric intervention (Drew et al., 1989). Perhaps more accurately, the practice of episiotomy has been so thoroughly incorporated into the birthing process that it has become an anticipated and normal part of childbirth for most women, and is often not

even perceived as an intervention (House, 1981).

Many women reported that they trusted the doctors judgement in relation to the performance of episiotomy, which would suggest that they were willing to transfer responsibility for the decision to have the episiotomy to someone with more knowledge and who would have their best interests at heart. One woman reported the following response:

"I felt that in prenatal classes they harped on the fact of a birth plan, and whether or not you want an episiotomy. I don't agree because I know my doctor would not do it unless it was necessary. I know he was looking out for my best interests."

For many women having their own doctor present for the delivery was not always possible. For other women there may have been a level of personal discomfort or feelings of inadequacy in being involved in a 'medical' decision. However, over half of the women in the study reported being satisfied or very satisfied with their involvement in the decision to have an episiotomy.

Approximately 20 percent of women reported negative feelings about their episiotomy. Women having a second episiotomy were more likely to experience negative feelings. This finding may be due to a past negative experience with episiotomy. Perhaps for some of these women, feelings of anger, disappointment, and being upset, related more to the lack of information about having the episiotomy. One woman made the following comment about receiving her episiotomy, "It makes me mad because they didn't tell me. If it makes it easier for baby to come out then OK, but they should have told me." This finding is congruent with previous research relating to women's satisfaction with their childbirth experience. One study reported that the lack of

information about the amount and types of interventions being done to them was a source of dissatisfaction for many women (McIntosh, 1989). The use of obstetrical interventions, including episiotomy, has been found to be negatively correlated with a woman's overall satisfaction with childbirth (Green et al., 1990). It has also been noted that women who have choices enjoy greater control of their bodies and their birth experience, all of which can enhance perception of self and of outcome (Rooks et al., 1992; Shiono et al., 1990).

The majority of women in the study did not look at the episiotomy cut. While some women reported that the position to visualize the episiotomy was too awkward, many women reported being 'scared to look', and others reported 'it might hurt more to look'. Kitzinger (1981) notes that women feel unable to explore their own external genitalia after childbirth because they are afraid of what they might find. The size of the episiotomy scar can be magnified in some women's minds, and can be a source of altered body image (Way, 1996). For those women in the study who looked at their episiotomy cut, a third of women reported that it looked worse than they had anticipated. Words such as 'frightening', and 'horrible and swollen,' were used by some women to describe how the episiotomy looked. It is possible that women's perceptions of how the episiotomy might look and their inability to explore their episiotomy cut, may in some way be associated with how they perceive their own body image, and may have a profoundly adverse psychological impact on a woman (Way, 1996).

Implications for Nursing/Midwifery Practice

What women know and their perceptions about episiotomy have brought forward many implications for nursing and midwifery practice. In this study, episiotomy was discussed by a physician or prenatal educator with the majority of women in the prenatal period. However, the information provided about episiotomy in the prenatal period was reported by almost half of the women to be inadequate. The extent to which women were provided comprehensive information about the risks and benefits of episiotomy in order to make an informed choice remains unknown.

Nurses and midwives can help women to minimize perineal trauma. Through prenatal education, women can be supported with knowledge of the advantages and disadvantages of episiotomy, which will enable them to make informed choices about their care. It has been documented that with prenatal perineal preparation, alternative birthing positions, and non directed second stage bearing down techniques, perineal trauma can be minimized if not completely avoided (Glossip, 1996). This information must be disseminated in the prenatal period to be of any benefit to women in labour who want to avoid perineal trauma. Women also need to know that there is variation in practice and that they can choose a practitioner who can work with them to minimize perineal trauma, and who supports them in their choices. Midwives and family physicians frequently have lower episiotomy rates than do obstetricians (Hueston, 1996; Ruderman et al., 1992). The skill level of the practitioner at minimizing perineal trauma can be ascertained by inquiring into episiotomy rates and whether the practitioner frequently delivers over an intact perineum. The choices women make about their care will then be

based on individual needs rather than routine physician practices (Maier & Maloni, 1997).

Nurses and midwives working with women in labour may have little control over a physician's decision to perform an episiotomy (Maier & Maloni, 1997). However, nurses and midwives can encourage women to use a variety of birthing positions and pushing techniques to decrease the incidence of perineal trauma. Dissemination of research-based information, along with providing role models of more appropriate research based care may increase the likelihood that an episiotomy will be avoided.

Communication with women about procedures and events in labour cannot be underestimated. The adequacy of information provided about episiotomy prenatally, at the time of delivery and in the postnatal period, was associated with maternal levels of satisfaction with their involvement in the decision to have an episiotomy. The more information and explanation that is given to women about procedures and interventions, the more likely they are to be satisfied with their birth experience (McIntosh, 1989).

Many women, especially from other cultures may have very different perceptions about childbirth and the use of obstetric intervention. While the women in the study were predominantly Caucasian, many other cultures were represented. It is interesting to note that ethnicity was associated with knowledge about the meaning of episiotomy, and with negative feelings about the episiotomy. These findings may be related to the inability of these women to understand what was happening and to ask appropriate questions. Nurses and midwives need to be sensitive to women from a variety of cultures, who may view childbirth as a sacred and private event (Kulig, 1997).

Although many of the treatments and much of the information offered to women in the postpartum period provided some relief of the effects of episiotomy, there is little evidence to support these practices. Approximately a third of the women in the study reported that the information they received about how to care for their episiotomy was inadequate. As one woman commented: "I think ladies should be given more information about this (episiotomy)...they should give you more teaching rather than a bath demo. If you know how to take care of yourself first then you can take care of your baby." The postnatal period is a time of physical and emotional adjustment for a new mother. A mother will have difficulty cuddling her baby while experiencing severe perineal pain (Sleep, 1990).

Perhaps what is needed for women in the early days following childbirth is a supportive environment for mothers to receive kindness, respect, understanding and patience. Such concepts create a 'woman centered' environment (Sleep, 1990) rather than care based on routine hospital practices. This individualized care may have a substantial impact in minimizing pain and discomfort and promoting physical recovery and self confidence (Grant & Sleep, 1989).

Implications for Nursing/Midwifery Research

The use of episiotomy as a routine obstetric procedure has been researched and found to have very few benefits and significant risks. Although studies focusing on women's satisfaction with childbirth have provided some insight into how women view episiotomy, little is known about the psychosocial impact it has on women.

The effectiveness of various treatments on the traumatized perineum requires

further study. More research is needed to understand how an episiotomy may affect the way a woman perceives her own body image. Greater attention is needed to evaluate ways of preventing perineal damage, through more research and changes in maternity practices. And finally, the actions of women themselves in preventing perineal damage requires further study.

Limitations of the Study

A significant decrease in the episiotomy rate occurred at the Royal Alexandra Hospital from 34.7 percent in 1994 to 29.5 percent in 1995 during the study period. It is uncertain whether the changes in practice were related more to a natural trend toward a decrease in episiotomy rates as a result of new published research, or whether an awareness of the procedure being studied affected the episiotomy rate. It may be possible that the sample included women having larger babies, or women who were at greater risk for requiring intervention and an episiotomy, than would normally be seen in the general population. It is also not known if the information and support provided to women in relation to their episiotomy also changed as a result of conducting the study. These possible influences must be considered when examining the results of this study.

No attempt was made in the study to examine the characteristics of care givers in relation to episiotomy in order to further explain episiotomy in a more comprehensive way. Finally, the qualitative findings of this study would suggest the need to further explore women's experiences of episiotomy, and provides direction for future research.

Table 1
Reasons for exclusion, refusal to participate, and loss to followup of potential subjects. (n=275)

	Frequency (n)	%
Exclusion		
Non English speaking	31	11.3
No access to telephone	4	1.5
Baby admitted to NICU	6	2.9
Maternal medical complication	1	0.4
Maternal psychiatric complication	1	0.4
No contact made/discharged early	4	1.5
Refusal to participate		
Too busy to participate in study	4	1.5
Not interested in participating in study	18	6.5
Husband refused participation	2	0.7
No reason given	5	1.8
Too tired to participate in study	1	0.4
Episiotomy to difficult to talk about	3	1.1
Lost to Followup		
Poor understanding of English	4	1.5
Unable to reach subject by phone	3	1.1
Too busy to be interviewed	2	0.7
Interview schedule lost	1	0.4
Total	90	32.7

Table 2
Results of Interrater Reliability Testing
(R) denotes researcher conducted the interview. (RA) denotes research assistant conducted the interview.

Interview #	Interrater agreement (%)
#11 (R)	92.7
#16 (R)	94.7
#18 (R)	94.7
#21 (R)	92.9
#26 (RA)	92.9
#29 (R)	96.5
#35 (RA)	96.5
#36 (RA)	96.5
#45 (RA)	94.7
#47 (R)	91.2
#56 (R)	100.0
#71 (RA)	87.7
#93 (RA)	91.2
#125 (RA)	98.2
#149 (R)	94.7

Table 3
Combined Income Level for Past Year

	Frequency (n)	%
less than $10,000	15	8.1
between $10,000 and $19,999	14	7.6
between $20,000 and $29,999	10	5.4
between $30,000 and $39,999	22	11.9
between $40,000 and $49,999	20	10.8
between $50,000 and $59,999	23	12.4
between $60,000 and $69,999	12	6.5
between $70,000 and $79,999	9	4.9
more than $80,000	21	11.4
Unknown	39	21.0
Total	185	100.0

Table 4
Ranking of Occupations for Women and their Partners

	Women		Partner	
Ranked Occupation	n	%	n	%
Farm labourers			2	1.1
Unskilled manual	4	2.2	25	13.5
Unskilled clerical-sales-service	17	9.2		
Semi-skilled manual	2	1.1	19	10.3
Semi-skilled clerical-sales-service	44	23.8	11	5.9
Farmers			1	0.5
Skilled crafts and trade	1	0.5	33	17.8
Skilled clerical-sales-service	21	11.4	8	4.3
Foremen and women			8	4.3
Supervisors	2	1.1		
Middle management	7	3.8	11	5.9
Technicians	4	2.2	5	2.7
Semi-professional	14	7.6	10	5.4
High-level management	3	1.6	1	0.5
Employed professionals	24	13.0	21	11.4
Self-employed professionals	2	1.1	5	2.7
Unemployed	3	1.6	5	2.7
Self employed-unspecified			4	2.2
Keeping House	15	8.1	1	0.5
Student	14	7.6	3	1.6
Unknown	8	4.3	12	6.5
Total	185	100.0	185	100.0

Table 5
Medical Indications for Episiotomy (n=185)

Indication	Frequency (n)	%
protect against tear/control existing tear	74	40.0
instrument delivery	55	29.7
fetal distress	36	19.5
to speed delivery	23	12.4
prolonged second stage	21	11.4
shoulder dystocia/large baby/large head	11	5.9
malpresentation	3	1.6
maternal exhaustion	3	1.6
patient request	1	0.2
no indication given	25	13.5

*Some physicians responded to more than one category.

Table 6
Womens Perception of Physician Response to her Verbalization of Pain During Suturing (n=62)

Response	Frequency (n)	%
offered extra anaesthetic	32	51.6
said won't be long, or similar	17	27.4
offered reassurance or distracting conversation	4	6.5
said nothing	4	6.5
offered apology	3	4.8
not able to recall response	2	3.2
acknowledged the pain/discomfort	2	3.2

*Some women responded to more than one category.

Table 7
Womens Perception of Reason for Episiotomy (n=185)

Reason Given	Frequency (n)	%
Shoulder dystocia/large baby/large head	40	21.6
Protect against tear/control existing tear	23	12.4
Fetal distress	16	8.6
Maternal exhaustion	6	3.2
To speed delivery	5	2.7
Instrument delivery	4	2.2
Malpresentation	3	1.6
Patient request	3	1.6
No reason given	97	52.4

*Some women responded to more than one category.

Table 8
Descriptions of How the Episiotomy Felt (n=185)

Description	Frequency (n)	%
painful/sore/very sore	126	68.1
swollen/tight/pressure feeling	73	39.5
tender/uncomfortable	51	27.6
burning/stinging	26	14.1
throbbing	13	7.0
bruised	8	4.3
comfortable	10	5.4

*Some women responded to more than one category.

Table 9
Activities Which Made the Episiotomy Feel Worse (n=172)

Activity	Frequency (n)	%
sitting	125	72.7
position changes	86	50.0
walking	52	30.2
urinating	48	27.9
having bowel movement	38	22.1
coughing/sneezing/lifting	31	18.0
standing	14	8.1
breastfeeding	5	2.9

*Some women responded to more than one category.

Table 10
Frequency of Use of Treatments for Episiotomy

Treatment Offered	Utilization of Treatment	Frequency (n)	%
Peri Bottle	often	120	85.7
n=140	occasionally	19	13.6
	never	1	0.7
Pain Killers	often	36	35.6
n=101	occasionally	64	63.4
	never	1	1.0
Sitz Bath/Bidet	often	13	35.1
n=37	occasionally	23	62.2
	never	1	2.7
Ice Packs	often	16	36.4
n=44	occasionally	27	61.4
	never	1	2.3
Air Ring	often	1	33.3
n=3	occasionally	2	66.7
	never	0	
Stool Softener	often	4	33.3
n=12	occasionally	8	66.7
	never	0	
Blow Dryer	often		
n=1	occasionally	1	100.0
	never		
Homeopathic arnica	often	missing data	
n=1	occasionally		
	never		

Table 11
Effectiveness of Treatments for Episiotomy

Treatment Offered	Utilization of Treatment	Frequency (n)	%
Peri Bottle	very effective	66	49.6
n=133	somewhat effective	39	29.3
	minimally effective	21	15.8
	not effective	7	5.3
Pain Killers	very effective	48	49.5
n=97	somewhat effective	37	38.1
	minimally effective	9	9.3
	not effective	2	2.1
Sitz Bath/Bidet	very effective	19	55.9
n=34	somewhat effective	12	35.3
	minimally effective	3	8.8
	not effective		
Ice Packs	very effective	24	57.1
n=42	somewhat effective	12	28.6
	minimally effective	4	9.5
	not effective	2	4.8
Air Ring	very effective	2	66.6
n=3	somewhat effective	1	33.3
	minimally effective		
	not effective		
Stool Softener	very effective	5	91.7
n=12	somewhat effective	3	25.0
	minimally effective	3	25.0
	not effective	1	8.3
Blow Dryer	very effective	1	100.00
n=1	somewhat effective		%
	minimally effective		
	not effective		
Homeopathic arnica	very effective	missing data	
n=1	somewhat effective		
	minimally effective		
	not effective		

Table 12
Womens Perception of Information Received on How to Care for Episiotomy (n=139)

Information given	Frequency (n)	%
use the peri bottle each time to bathroom	105	75.5
soak in bathtub/shower	83	59.7
keep episiotomy clean	41	29.5
use cold compresses	35	25.2
use pain medication as required	14	10.1
make a ring from towel to sit on	12	8.6
when sutures would dissolve	8	5.8
signs of infection	6	4.3
use blow dryer to keep episiotomy dry	6	4.3
restrict movement	8	5.8
keep pads in fridge	3	2.2
received pamphlet	4	2.9
use stool softeners	3	2.2
practice Kegels	2	1.4
use Epsom salts	1	0.7

*Some women responded to more than one category.

Table 13
Other experiences and feelings of women related to episiotomy (n=185)

	Frequency (n)	%
felt episiotomy was necessary	43	23.2
pain concerns/impaired functioning	35	18.9
need for more information/teaching	23	12.4
healing concerns	18	9.7
healing well/progressing fine	17	9.2
trusted doctors judgement	14	7.6
relieved/glad to have episiotomy	8	4.3
no other feelings/experiences	61	33.3

*Some women responded to more than one category.

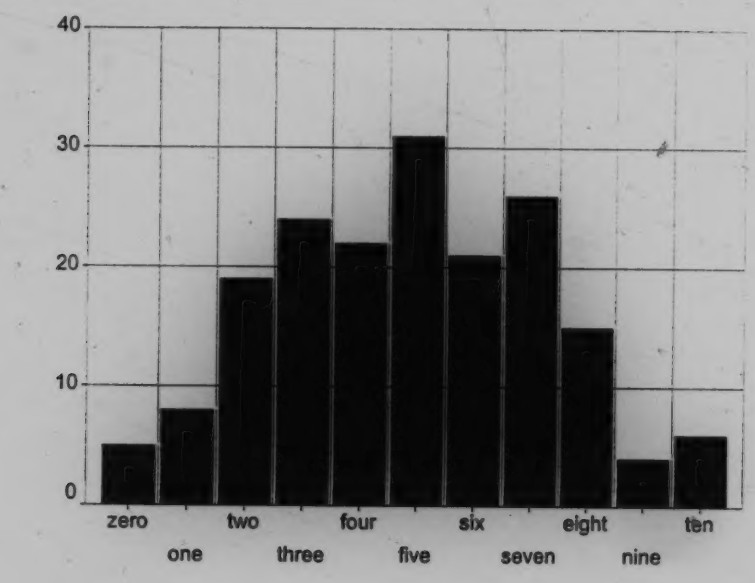
Table 14
Incidence of Observed and Expected Type of Delivery in Relation to Parity

			parity of woman		
			primip	multip	Total
Type of delivery	spontaneous	Count	52.0	59.0	111.0
		Expected Count	63.6	47.4	111.0
	forcep	Count	29.0	6.0	34.0
		Expected Count	19.5	14.5	34.0
	vacuum extraction	Count	26.0	14.0	40.0
		Expected Count	22.9	17.1	40.0
Total		Count	106.0	79.0	185.0
		Expected Count	106.0	79.0	185.0

Table 15
Incidence of Observed and Expected Third/Fourth Degree Extensions in Relation to Type of Episiotomy

			third/fourth degree extensions		
			mediolateral with third/fourth degree extension	midline with third/fourth degree extension	Total
Type of episiotomy	mediolateral episiotomy	Count	12.0	0.0	12.0
		Expected Count	4.5	7.5	12.0
	midline episiotomy	Count	0.0	20.0	20.0
		Expected Count	7.5	12.5	20.0
Total		Count	12.0	20.0	32.0
		Expected Count	12.0	20.0	32.0

Figure 1
Reported Levels of Postepisiotomy Pain (n=181)



References

Ahn, M., Cha, K. & Phelan, J. (1992). The low birth weight infant: Is there a preferred route of delivery? Clinics in Perinatology, 19(2), 411-414.

Allen, R. E., Hosker, G. L., Smith, A. R. B. & Warrell, D. W. (1990). Pelvic floor damage and childbirth: A neurophysiological study. British Journal of Obstetrics and Gynecology, 97, 770-779.

Argentine Episiotomy Trial Collaborative Group (1993). Routine vs selective episiotomy: a randomised controlled trial. Lancet, 342, 1517-18.

Borgatta, J., Hutson, N. & Lynch, C. B. (1989). Randomized controlled trial of squatting in the second stage of labour. Lancet, 2, 74-77.

Brown, S. & Lumley, J. (1994). Satisfaction with care in labor and birth: A survey of 790 Australian women. Birth, 21 (1), 4-13.

Drew, N. C., Salmon, P. & Webb, L. (1989). Mothers', midwives', and obstetricians' views on the features of obstetric care which influence satisfaction with childbirth. British Journal of Obstetrics and Gynecology, 96, 1084-88.

Ecker, J. L., Tan, W. M., Bansal, R. K., Bishop, J. T. & Kilpatrick, S. J. (1997). Is there a benefit to episiotomy at operative vaginal delivery? Observations over ten years in a stable population. American Journal of Obstetrics and Gynecology, 176, 411-14.

Epp, J. (1986). Achieving health for all: A framework for health promotion. Health and Welfare Canada.

Francis, J. (1997). Breastfeeding and Severe Maternal Pain. Journal of Human Lactation, 13(2), 100.

Glossop, C. (1996). Perineal care after childbirth. Health Visitor, 69(3), 96-99.

Golay, J., Vedam, S., & Sorger, L. (1993). The squatting position for the second stage of labor: Effects on labor and on maternal and fetal well-being. Birth, 20(2), 73-78.

Green, J. M., Coupland, V. A. & Kitzinger, J. V. (1990). Expectations, Experiences, and Psychological Outcomes of Childbirth: A Prospective Study of 825 Women. Birth, 17(1), 15-24.

Gupta, J. K. & Lilford, R. J. (1986). Birth positions. Midwifery, 3, 92-26.

Harris, M. (1992). The impact of research findings on current practice in relieving postpartum perineal pain in a large district general hospital. Midwifery, 8, 125-131.

Harrison, R. F., Brennen, M., North, P. M., Reed, J. V. & Wickham, E. A. (1984). Is routine episiotomy necessary? British Medical Journal, 288(30), 1971-75.

Helewa, M. E. (1997). Episiotomy and severe perineal trauma: Of science and fiction. Canadian Medical Association Journal, 156(6), 811-13.

Helwig, J. T., Thorp, J. R., & Watson, A. (1993). Does midline episiotomy increase the risk of third- and fourth- degree lacerations in operative vaginal deliveries? Obstetrics and Gynecology, 82, 276-9.

Hollingshead, A. (1975). Four factor index of social status. New Haven, CT: Yale University Press.

Hordnes K. & Bergsjo, P. (1993). Severe lacerations after childbirth. Acta Obstetric Gynecologic Scandinavia, 72, 413-22.

Hoult, I. (1986). The management of labor: An obstetricians view. In S. Kitzinger and P. Simpkin (Eds.), Episiotomy and the second stage of labor (pp.89-95). Seattle, WA: Pennypress Inc.

House, M. (1981). Episiotomy: Indications, techniques and results. Midwife, Health Visitor and Community Nurse, 6-9.

House, M. J. (1986). To do or not to do an episiotomy? In S. Kitzinger and P. Simpkin (Eds.), Episiotomy and the second stage of labor (pp. 89-95). Seattle, WA: Pennypress Inc.

Hueston, W. J. (1996). Factors Associated with the Use of Episiotomy During Vaginal Delivery. Obstetrics and Gynecology, 37(6), 1001-05.

Hughes, J. (1997). Effects of health care reform on helping relationships. In M.S. Stewart (Ed.). Community Nursing: Promoting Canadian's Health (pp. 532-555). Toronto: W.B. Saunders.

Jacoby, A. (1987). Women's preferences for and satisfaction with current procedures in childbirth-findings from a national study. Midwifery, 3, 117-124.

Kitzinger, S. (1981). Emotional aspects of episiotomy and postnatal sexual adjustment. In S. Kitzinger (Ed.), Episiotomy: Physical and Emotional Aspects (pp.45-53). London: National Childbirth Trust.

Kitzinger S. & Walters, R. (1981). Some women's experiences of episiotomy. London: National Childbirth Trust.

Klein, M. C., Gauthier, R. J., Jorgensen, S. H., Robbins, J. M., Kaczorowski, J., Johnson, B., Corriveau, M., Westreich, R., Waghorn, K., Franco, E. D., Gelfand, M. M., Guralnick, M. S., Luskey, G. W. & Joshi, A. K. (1993). Episiotomy as a preventive strategy: Does it work? Journal SOGC, June, 590-602.

Klein, M. C., Gauthier, R. J., Robbins, J. M., Kaczorowski, J., Jorgensen, S. H., Johnson, B., Corriveau, M., Westreich, R., Waghorn, K., Franco, E. D., Gelfand, M. M., Guralnick, M. S., Luskey, G. W. & Joshi, A. K. (1994). Relationship of episiotomy to perineal trauma and morbidity, sexual dysfunction, and pelvic floor relaxation. American Journal of Obstetrics and Gynecology, 171, 591-8.

Klein, M. C., Kaczorowski, J., Robbins, J. M., Gauthier, R. J., Jorgensen, S., & Joshi, A. K. (1995). Physicians' beliefs and behaviour during a randomized controlled trial of episiotomy: Consequences for women in their care. Canadian Medical Association Journal, 153(6), 769-779.

Kulig, J. (1997). Culturally diverse communities: The impact on the role of community health nurses. In M.J. Stewart (Ed.). Community Nursing: Promoting Canadian's Health (pp. 246-266). Toronto: W.B. Saunders.

Labrecque, M., Baillargeon, L., Dallaire, M., Tremblay, A., Pinault, J. & Gingras, S. (1997). Association between median episiotomy and severe perineal lacerations in primiparous women. Canadian Medical Association Journal, 156(6), 797-802.

Larsson, P., Platz-Christensen, J., Bergman, B. & Wallstersson, G. (1991). Advanage and disadvantage of episiotomy compared with spontaneous perineal laceration. Gynecologic and Obstetric Investigation, 31, 213-16.

Lydon-Rochelle, M., Albears, L., & Teaf, D. (1995). Perineal outcomes and nurse-midwifery management. Journal of Nurse-Midwifery, 40(1), 13-17.

Maier, J. & Maloni, J. (1997). Nurse Advocacy for Selective Versus Routine Episiotomy. JOGNN, 26(2), 155-161.

McGuinness, M., Norr, K. & Nacion, K. (1991). Comparison between different perineal outcomes on tissue healing. Journal of Nurse-Midwifery, 36(3), 192-198.

McIntosh, J. (1989). Models of childbirth and social class: A study of 80 working-class primigravidae. In S. Robinson and A. Thomson (Eds.), Midwives, research, and childbirth (pp. 189-214). New York: Chapman and Hall.

Norusis, Marija J. (1993). SPSS for Windows, Base System. Illinois: SPSS Inc.

Pineo, P. C. (1984). Revisions of the Pineo-Porter-McRoberts Socioeconomic Classification of Occupations for the 1981 Census. Unpublished manuscript, McMaster University, London.

Poen, A. C., Felt-Bersma, R. J. F., Dekker, G. A., Deville, W., Cuesta, M. A. & Meuwissen, S. G. M. (1997). Third degree obstetric perineal tears: risk factors and the preventive role of mediolateral episiotomy. British Journal of Obstetrics and Gynecology, 104, 563-66.

Reading, A. E., Sledmere, C. M., Cox, D. N. & Campbell, S. (1982). How women view postepisiotomy pain. British Medical Journal, 284, 243-46.

Reynolds, J. L. & Yukdin, P. L. (1987). Changes in the management of labor: 2. Perineal management. Canadian Medical Association Journal, 136, 1045-9.

Rockner, G., Wahlberg, V. & Olund, A. (1989). Episiotomy and perineal trauma during childbirth. Journal of Advanced Nursing, 14, 264-8.

Rooks, J. P., Weatherby, N., & Ernst, E. (1992). The national birth center study. Journal of Nurse-Midwifery, 37(5), 301-338.

Royal Alexandra Hospital (1993). Yearly caseroom record statistics. Unpublished raw data.

Royal Alexandra Hospital (1994). Yearly caseroom record statistics. Unpublished raw data.

Royal Alexandra Hospital (1995). Yearly caseroom record statistics (March, 1995-June, 1995). Unpublished raw data.

Shiono, P., Klebanoff, M. A. & Carey, J. C. (1990). Midline episiotomies: More harm than good? Obstetrics and Gynecolgy, 75(5), 765-770.

Shipman, M. K., Boniface, D. R., Tefft, M. E. & McCloghry, F. (1997). Antenatal perineal massage and subsequent perineal outcomes: a randomised controlled trial. British Journal of Obstetrics and Gynecology, 104, 787-91.

Shroff, F. M. (1997). Midwifery-from Rebellion to Regulation. In F. Shroff (Ed.). The New Midwifery: Reflections on Renaissance and Regulation (pp. 14-37). Toronto: Women's Press.

Simpkin, P. (1986). Stress, Pain, and Catecholamines in Labor: Part 2. Stress Associated with Childbirth Events: A Pilot Survey of New Mothers. Birth, 13(4), 234-40.

Slade, P., MacPherson, S. A., Hume, A., Maresh, M. (1993). Expectations, experiences and satisfaction with labour. British Journal of Clinical Psychology, 32, 469-83.

Sleep, J. & Grant, A. (1980). Relief of perineal pain following childbirth: A survey of midwifery practice. Midwifery, 4, 118-122.

Sleep, J., Roberts, J. & Chalmers, I. (1989). Care during the second stage of labor. In M. Enkin and M. Keirse & I. Chalmers, (Eds.). Effective Care in Pregnancy and Childbirth (pp.1129-44). Oxford: Oxford University Press.

Sleep, J. (1990). Postnatal perineal care. In J. Alexander, V. Levy & S. Roch, (Eds.). Postnatal Care: A research-based approach (pp. 1-17). London: Macmillan Education Ltd.

Sleep, J. & Grant, A. (1987). West Berkshire perineal management trial: Three year followup. British Medical Journal, 295 (26), 749-51.

Sleep. J., Grant, A., Garcia, J., Elbourne, D., Spencer, J. & Chalmers, L. (1984). West Berkshire perineal management trial. British Medical Journal, 209(8), 587-90.

Smith, M., Ruffin, M., & Green, L. (1993). The rational management of labor. American Family Physician, 47(6), 1471-79.

Snooks, S. J., Setchell, M., Swash, M. & Henry, M. M. (1984). Injury to innervation of pelvic floor sphincter musculature in childbirth. Lancet, September 8, 546-550.

Sultan, A. H., Kamm, M. A., Hudson, C. N., Chir, M., Thomas, J. M. & Bartram, C. I. (1993). Anal sphincter disruption during vaginal delivery. New England Journal of Medicine, 329(26), 1905-1911.

Sultan, A. H., Kamm, M. A., Hudson, C. N. (1994). Pudendal nerve damage during labour: prospective study before and after childbirth. British Journal of Obstetrics and Gynecology, 101, 22-28.

Thacker, S. B. & Banta, D. (1983). Benefits and risks of episiotomy: An interpretive review of the English language literature. 1860-1980. Obstetrical and Gynecological Survey, 38(6), 322-38.

The, T. G. (1990). Is routine episiotomy beneficial in the low birth weight delivery? International Journal of Gynaecology and Obstetrics, 31, 135-140.

Thorp, J. & Bowes, W. A. (1989). Episiotomy: Can its routine use be defended? American Journal of Obstetrics and Gynecology, 160(5), 1027-28.

Walker, M., Farine, D., Rolbin, S., & Ritchie, J. (1991). Epidural anesthesia, episiotomy, and obstetric laceration. Obstetrics and Gynecology, 77, 668-70.

Way, S. (1996). Episiotomy and body image. Modern Midwife, 6(9), 18-9.

Wilcox, L. S., Strobino, D. M., Gigliola, B. & Dellinger, W. S. (1989). Episiotomy and its role in the incidence of perineal lacerations in a maternity center and a tertiary hospital obstetric service. American Journal of Obstetrics and Gynecology, 160(5), 1047-52.

Wooley, R. J. (1995a). Benefits and Risks of Episiotomy: A review of the English-Language Literature Since 1980. Part 1. Obstetrical and Gynecological Survey, 50(11), 806-20.

Wooley, R. J. (1995b). Benefits and Risks of Episiotomy. A Review of the English-Language Literature Since 1980. Part II. Obstetrical and Gynecological Survey, 50(11), 821-35.

Yeates, D., & Roberts, J. (1984). A comparison of two bearing down techniques during the second stage of labor. Journal of Nurse Midwifery, 29(1), 3-11.

Zlatnik, F. J. (1994). Normal labor and delivery. In J.R. Scott, P.J. Disaia, C.B. Hammond, W.N. Spellacy (Eds.). Danforth's Obstetrics and Gynecology, 7th ed. (pp.105-128). Philadelphia: JB Lippincott.

University of Alberta
Edmonton
Canada T6G 2G3

Faculty of Nursing
3rd Floor Clinical Sciences Building

APPENDIX A

Letter to Physicians

Date:

Dear Physician:

I am presently planning a descriptive study with the purpose of describing women's knowledge and perceptions about their episiotomy. Women who receive an episiotomy will be asked to participate in the study.

Pending approval from the Ethics Committee, University of Alberta, and the Ethics Committee, at the Royal Alexandra Hospital, the subjects will be recruited from the postpartum unit, Royal Alexandra Hospital. The study will be conducted over a two month period from January to March, 1995.

The results of the study will assist in providing a better understanding of women's knowledge and perceptions of episiotomy. This will enhance information provided to women in the prenatal period, as well as to enhance the quality of care and support given to women in the postpartum period.

I would be pleased to send you a summary of the study on your request.

Sincerely,

Lorna Breitkreuz, MN Candidate
Faculty of Nursing, University of Alberta

Request for Summary: (optional)

If you wish to receive a summary of the study when it is finished, please complete this section:

Name:_____

Address:_____

APPENDIX B

Indication for Episiotomy Form

1. Episiotomy done?

1)____ no
2)____ yes

AFFIX LABEL

If yes,

2. Indication(s) for episiotomy?

(If more than one indication, please rank in order of importance by placing a 1 by the most important indication, a 2 by the second most important indication, etc.)

1)____ protect against a tear
2)____ fetal distress
3)____ instrument delivery
4)____ to speed delivery
5)____ prolonged second stage
6)____ other (please state)

_____

_____

University of Alberta
Edmonton
Canada T6G 2G3

Faculty of Nursing
3rd Floor Clinical Sciences Building

APPENDIX C

Information and Consent Form

PROJECT TITLE: Characteristics and Perceptions of Women Who Receive Episiotomy

INVESTIGATOR: Lorna Breitkreuz, RN, MN Candidate
Faculty of Nursing, University of Alberta
(403) 434-7154

SUPERVISOR: Dr. Beverley O'Brien, DNS, Assistant Professor
Faculty of Nursing, University of Alberta
(403) 492-8232

PURPOSE: This study has two purposes. One purpose is to describe what women know about episiotomy. The second purpose is to find out how women feel about episiotomy.

PROCEDURE: My assistant or I will carry out the study at the Royal Alexandra Hospital. If you consent, one of us will phone you in about three or four days. A suitable time will be arranged for you to speak to one of us by phone. The interview will take about 30 minutes.

My assistant or I will ask you about your episiotomy. You also will be asked about yourself and your family. We will write the answers on a form. Some of you will have your interview tape recorded. You will be told of this at the time of the interview. A doctor and a nurse who are not part of the study will be asked to listen to some of the tapes. This will help us know that we are recording what you tell us correctly.

PARTICIPATION: You will not be harmed if you take part in this study. Results from this study may help caregivers give better information to pregnant women. The results also may help caregivers to give better care to women after the birth of their baby. Therefore, both women and caregivers will benefit from this study.

You do not have to be in this study if you do not wish to be. If you decide to be in the study, you may drop out any time by telling me or my assistant. You do not have to answer any questions in the telephone interview if you do not want to. Taking part in this study or dropping out will not affect your care in the hospital.

Your name will not appear in this study. Only a code number will appear on any forms or question sheets. My assistant or I will erase your name and any other identifying information. We will keep all tapes and notes in a locked cabinet. They will be kept separate from consent forms or code lists. They will be saved for seven years after the study is finished. Consent forms will be thrown away after five years. Data may be used for another study in the future. The researcher must get permission to do so.

The researcher may publish or present information and findings of this study. Your name or any material that may identify you will not be used. If you have questions or concerns about this study, you can contact me at the number above.

CONSENT: I acknowledge that the researcher has explained the above research procedures. I have had all questions about the study fully answered. I know that I may contact the person named below, if I have further questions about the study. I know that being in the study will not affect my care. I will not benefit directly from this study, but the information I give may help other women. I know that records about this study will be kept confidential.

I understand that I am free to drop out at any time. I can do this by talking to the researcher (434-7154) or her supervisor, Dr. Beverley O'Brien (492-8232). My nursing care will not be affected if I do not take part in the study, or drop out. I will be told if information from the study is found that could affect my decision to be in this study. I have been given a copy of this form to keep.

_____ _____

(Signature of Participant) (Date)

_____ _____

(Signature of Investigator) (Date)

REQUEST FOR SUMMARY: (Optional)

If you wish to receive a summary of the study when it is finished, please complete the next section:

Name:_____

Address:_____

APPENDIX D

Interview Schedule

This interview has two purposes. The first purpose is to ask you questions about your episiotomy. The second purpose is to ask you some questions about yourself and your family. You will need to be free from any interruptions for the next 20 to 30 minutes. Would you please answer the questions as accurately as possible? (inform woman if interview is being taped)

1. Had you heard the term episiotomy before you started your labor?

   1)____ yes
   2)____ no

2. Did you know what it meant?

   1)____ yes
   2)____ no

3. In your own words, what is an episiotomy?

   _____

   _____

   _____

4. During your pregnancy, did you discuss having an episiotomy with your doctor?

   1)____ yes
   2)____ no

5. During your pregnancy, did you discuss episiotomy with another health professional? (ie. childbirth educator)

   1)____ yes
   2)____ no

6. During your pregnancy, did you do any activities or treatments to get your bottom (perineum ready for the delivery? (ie. perineal massage)

1)____ yes
2)____ no

7. If yes, what treatments or activities did you do?

1)____ Kegel exercises
2)____ perineal massage
3)____ other (please list)

8. Did you expect to receive an episiotomy?

1)____ yes
2)____ no

9. When you signed the consent for medical treatment, were you aware that you were agreeing to the possibility of an episiotomy?

1)____ yes
2)____ no
3)____ n/a (unsure)

10. Was your delivery -

1)____ natural (go to #12)
2)____ assisted with instruments

11. What kind of instrument was used to help deliver your baby?

1)____ forceps
2)____ vacuum extractor
3)____ don't know

12. When you were pusing the baby out, what position were you in?

1)____ on back, legs in stirrups
2)____ on left side
3)____ on back with legs flexed
4)____ semi-sitting
5)____ squatting
6)____ other(please state)_____

13. Who actually conducted the delivery?

1)____ obstetrician
2)____ family physician
3)____ resident/intern
4)____ midwife
5)____ nurse
6)____ don't know

14. Were you given a reason for having an episiotomy?

1)____ yes
2)____ no (if answered no go to #16)

15. If yes, what reason was given?

1)____ to protect against a tear
2)____ to control an existing tear
3)____ vaginal opening "too tight/small"
4)____ to speed delivery
5)____ to allow room for instruments
6)____ can't remember
7)____ baby was in distress
8)____ other(please state)_____

16. Did you request that the time it was taking to deliver your baby be shortened?

1)____ yes
2)____ no

17. In what direction was the episiotomy cut?

1)____ midline (down middle)
2)____ lateral (angled down one side)
3)____ don't know

18. How many minutes had you been pushing before the careprovider cut your episiotomy?

1)____ less than 30 minutes
2)____ 30 to 45 minutes
3)____ 46 minutes to 1 hour
4)____ more than 1 hour and less than 2 hours
5)____ more than 2 hours
6)____ not sure

19. Did you have an injection of local anaesthetic (freezing) before your episiotomy was cut?

1)____ yes
2)____ no
3)____ don't know

20. Did you have an injection of local anaesthetic (freezing) before your episiotomy was being stitched?

1)____ yes
2)____ no
3)____ don't know

21. Was being stitched -

1)____ very painful
2)____ painful
3)____ slightly painful
4)____ painless

(If answered painless go on to #24)

22. If you had any pain or discomfort during the stitching, did you tell the care provider that it hurt?

1)____ yes
2)____ no

23. If yes, what did he/she say? (may select more than one answer)

1)____ care provider said nothing
2)____ care provider offered extra anaesthetic (freezing)
3)____ care provider said won't be long, or similar
4)____ care provider offered reassurance or distracting conversation
5)____ other(please comment)_____

24. Can you describe what your episiotomy felt like in the first few days after the birth of your baby?

1)____ throbbing
2)____ painful
3)____ burning
4)____ tender
5)____ comfortable
6)____ tight
7)____ swollen
8)____ sore or very sore
9)____ other(please comment)_____

25. At any time since you had the episiotomy, did you have any pain or discomfort at all from it?

1)____ yes
2)____ no

26. Now I want you to think about the amount of episiotomy pain you had since the baby was born. On a scale of zero to ten, with zero being no pain and ten being the worst pain, possible, tell me what your usual level of pain has been from the first day to now?

1)____ zero
2)____ one
3)____ two
4)____ three
5)____ four
6)____ five
7)____ six
8)____ seven
9)____ eight
10)___ nine
11)___ ten

27. Were there any activities that made the episiotomy feel worse?

1)____ yes
2)____ no (go to #29)
3)____ other (please comment)

_____

_____

28. If yes, what were those activities?

1)____ sitting
2)____ walking
3)____ breastfeeding
4)____ sex
5)____ position changes
6)____ urinating
7)____ coughing, sneezing
8)____ other (please comment)

_____

29. Following your delivery could you sit comfortably?

1)____ yes, easilty
2)____ if careful
3)____ with difficulty
4)____ not at all

30. Did or does your episiotomy affect you in any way in breastfeeding your baby?

1)____ not at all
2)____ occasionally
3)____ often
4)____ always
5)____ did not breastfeed

If yes,

31. In what way does it affect your breastfeeding?

1)____ getting baby latched
2)____ being able to get comfortable easily
3)____ being able to relax
4)____ other (please comment)

_____

32. Did or does your episiotomy affect you in any way in caring for your baby?

1)____ never
2)____ occasionally
3)____ often
4)____ always

If yes,

33. In what way does it affect caring for your baby?

1)____ holding
2)____ feeding
3)____ cuddling
4)____ other (please comment)

_____

34. What treatments were you given for your episiotomy in the hospital?

1)____ painkillers
2)____ air ring (donut)
3)____ sitz bath
4)____ ice packs
5)____ peri bottle
6)____ other (please comment)_____

35. How often did you receive these treatments?

1)____ often
2)____ occasionally
3)____ never

36. How effective were these treatments in giving relief to your episiotomy?

1)____ very effective
2)____ somewhat effective
3)____ minimally effective
4)____ not effective

37. Were you given any information or teaching about how to care for your episiotomy?

1)____ yes
2)____ no

If yes,

38. Who gave you information about how to care for your episiotomy?

1)____ doctor
2)____ hospital nurse
3)____ early discharge nurse
4)____ other (please indicate)

39. What information were you given about how to care for your episiotomy?

1)____ use peri bottle after each time to bathroom
2)____ showers
3)____ soak in bathtub
4)____ cold compresses
5)____ other (please comment)

_____

_____

40. How would you describe the adequacy of the information which you received on how to care for your episiotomy?

1)____ very inadequate
2)____ somewhat inadequate
3)____ adequate
4)____ very adequate
5)____ I am uncertain about adequacy

41. How did you feel about having an episiotomy?

1)____ relieved
2)____ did not mind
3)____ upset
4)____ did not give it any thought
5)____ disappointed
6)____ other (please explain)

_____

_____

42. How would you describe your feelings about the episiotomy at the time it happened?

1)____ I didn't know it was being done
2)____ I felt it was necessary
3)____ I questioned whether it was necessary
4)____ I did not think it was necessary
5)____ I did not want it done
6)____ I refused to have it done, but it was done anyway
7)____ it did not bother me
8)____ other (please comment)

_____

_____

43. Have you looked at your most recent episiotomy cut?

1)____ yes (go to #45)
2)____ no (go to #44)

44. If no, why not?

1)____ I'm scared to look
2)____ other (please comment)

_____

45. If yes, what was your reaction to what the episiotomy looked like?

1)____ looked better than expected
2)____ looked as expected
3)____ looked worse than expected
4)____ other (please comment)

_____

46. How would you describe the adequacy of the overall information which you were given during your pregnancy in preparation for your episiotomy?

1)____ very inadequate
2)____ somewhat inadequate
3)____ adequate
4)____ very adequate
5)____ I am uncertain about adequacy

47. How would you describe the adequacy of the information which you were given at the time of birth in relation to your episiotomy?

1)____ very inadequate
2)____ somewhat inadequate
3)____ adequate
4)____ very adequate
5)____ I am uncertain about adequacy

48. How would you describe your level of satisfaction with your involvement in the decision to have an episiotomy?

1)____ very dissatisfied
2)____ somewhat dissatisfied
3)____ uncertain of feeling
4)____ satisfied
5)____ very satisfied

49. Can you describe for me any further experiences or feelings about your episiotomy?

_____

_____

Section III - Demographic Profile

50. How many children have you given birth to, including this child?

1)____ one (go to #52)
2)____ two
3)____ three
4)____ four
5)____ five or more

51. Have you received an episiotomy in the past?

1)____ yes
2)____ no

52. What is your highest level of education completed?

1)____ junior high school
2)____ partial high school
3)____ high school diploma
4)____ post high school diploma (technical school)
5)____ partial university (degree not yet completed)
6)____ university degree
7)____ masters degree or higher

53. What is your occupation?

_____

54. What is your partner's occupation?

_____

55. How many days has it been since you delivered your baby? Count the day of birth as day 0.

1)____ three
2)____ four
3)____ five
4)____ other (please state) _____

56. What is your ethnic background?

1)____ Caucasian
2)____ Aboriginal
3)____ African descent
4)____ Latin American
5)____ Oriental
6)____ East Indian
7)____ Other (please specify)

_____

57. What is your combined income level for this past year, before deductions and taxes?

1)____ less than $10,000
2)____ between $10,000 and $19,999
3)____ between $20,000 and $29,999
4)____ between $30,000 and $39,999
5)____ between $40,000 and $49,999
6)____ between $50,000 and $59,999
7)____ between $60,000 and $69,999
8)____ between $70,000 and $79,999
9)____ more than $80,000
10)___ don't know
11)___ no response

58. Length of interview?

_____ minutes